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THE CANADIAN PRACTITIONER
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Original Communications.

1. A NEW METHOD OF CUTTING URINARY CALCULI. 2. A CASE OF UNUSUALLY LARGE CALCULUS REMOVED BY SUPRA-PUBIC SECTION.*

By GEORGE A. PETERS, M.B., F.R.C.S. Eng.,

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The following is a method of cutting stones of all kinds, hard and soft, which the author has found to be of great use and of equal simplicity. So far as can be ascertained the method is new and original.

The stone is first of all dipped for a moment into melted paraffin wax. This gives it a very thin coating of the wax, (Fig. 2 E) and prevents the sticking of plaster-of-Paris in which it is to be embedded. As a means of holding the stone absolutely immovable while it is being sawn, the aid of a horseshoe, as shown in the accompanying illustration (Fig. 1), is brought into use. The horseshoe is placed upon a board with its middle exactly over a line (Fig. 1 A) previously drawn longitudinally upon the board. This line is to serve as a constant fixed indication of the centre of the stone. The heels of the horseshoe may be tilted up by means of a short block (Fig. 1 B) placed crosswise under the shoe, so that they will about subtend the centre of the stone. The horseshoe is then nailed firmly into position on the board. The stone (Fig. 1 C)

* Presented at a meeting of the Toronto Pathological Society, November 2, 1901.

is now taken into the hands of the operator and carefully centralized opposite the line drawn on the board. Plaster-of-Paris cream is then run round it and over it in such a way as to embed the stone completely to the extent of not less than half an inch of covering at any part, and in such a manner that the embedding plaster also embraces the heels of the horseshoe (Fig. 1 D). The plaster is then allowed to set firmly, and if it can be left for several days until it is thoroughly dried so much the better, as it is found that the saw works more easily in thoroughly dry plaster. The stone is sawn directly through the plaster which embeds it in the line previously marked on the board, and a second cut is made through the plaster between the stone and the heel of the horseshoe. If the stone is very large and hard, the board may be fastened in a vice, and the



FIG. 1.

saw cut made through the board also. This serves very materially to steady the saw.) This section thus liberated can then be readily detached from the board, and will be found to contain one-half of the stone, which can be easily lifted out of the embedding plaster, part of which may be cut away (Fig. 2 F). The removal of the stone from the plaster is facilitated by plunging the whole into hot water for a few moments, when the paraffin wax becomes softened and the stone can thus be easily separated from the plaster. The last trace of wax is then melted off by holding it under a hot water tap, or putting it into a basin of hot water for a few moments. The cut surface of the stone may be polished rapidly and easily by grinding it on a ground-glass surface. In the case of very hard stones the polishing process is facilitated by using powdered pumice stone or emery, though this is seldom

necessary. In order to get a highly polished surface the stone should finally be rubbed on dry, plain glass, and later on some woollen fabric which will bring up the polish of the stone. The author has found this method of cutting to be perfectly applicable to the hardest oxalate of lime, as well as to the softest phosphatic stones, and even to gall-stones. It is impossible for the stone to fracture. The only case in which any difficulty was ever experienced was one in which a very hard oxalate of lime nucleus was surrounded by a layer of phosphates of very loose formation, around which again was a more dense phosphatic layer. During the sawing of this stone the nucleus worked loose in the centre. The section was, however, satisfactorily completed.

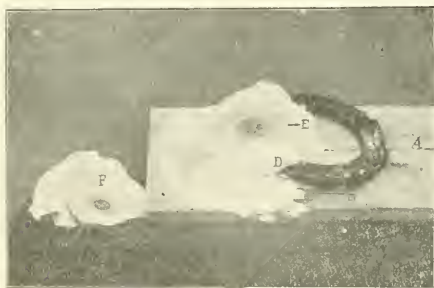


FIG. 2.

An ordinary carpenter's saw with a fair amount of "set" answers admirably. It should have no thickened back, as is found on most surgical saws.

CASE OF UNUSUALLY LARGE CALCULUS.

The specimen used to illustrate the method of cutting described above is a urinary calculus of unusually large size for this era and this country, where stone is not common. Its circumference in the longest diameter is $7\frac{1}{2}$ inches; in the shorter diameter $5\frac{3}{4}$ inches. It is of a fairly symmetrical oval shape, being slightly larger at one end than the other and somewhat flattened. Its weight at the time of removal was 6 ounces and 230 grains.

The host was a farmer, Mr. A., otherwise strong and healthy, age 39. He had been the subject of symptoms of stone in the bladder from the age of about 9 years. At times it produced

much pain, but latterly the symptoms had largely subsided, and he really suffered but little. This was explained at the time of operation by the fact that the stone had become partially encysted, and thus was immovable in the bladder.

The calculus was removed by supra-pubic cystotomy on the 1st of June, 1901. On opening the bladder the stone was found with its large end upwards, and its smaller end embedded to a slight extent in the fundus of the bladder behind the prostate. The wound in the bladder wall was made large enough to allow the stone to be removed without undue laceration. After removal the bladder was flushed out and stitched up with two rows of chromicized catgut sutures. The method employed for distending the bladder before operation was that advocated by Greig Smith, viz. by attaching the tube of a reservoir at an elevation of about 2 ft. to a catheter introduced into the bladder, and after stitching up the incision, the bladder was tested for the accuracy of the suturing by allowing it to become distended through the catheter. A tube surrounded by a layer of gauze was used for drainage down to, but not into, the bladder. The patient had no bad symptoms whatever, and the bladder wound healed by first intention, so that at the end of ten days there was no leakage whatever. But shortly after this a very small leakage occurred and persisted for some time, ultimately healing, however, and leaving a good, healthy retentive bladder.

On section the stone proves to have been in the first instance an oxalate of lime calculus. There is a nucleus of very firm, laminated dark brown oxalate about $\frac{1}{8}$ of an inch in diameter and bounded by a very dark crenated line of the same salt. Outside of this is another layer $\frac{1}{8}$ of an inch thick, showing oxalates apparently of very much looser formation with striae radiating towards the centre. On the outside of this central oxalate portion is a laminated crust varying from half an inch to an inch in thickness extending to the circumference and consisting probably of a mixture of urate of ammonium and phosphates. The X-ray photograph of the stone shows these laminae most markedly, with various spots which are found on section of the stone to be probably due to the more dense phosphatic substance which is found irregularly distributed between the laminae.

If we were to attempt to read what Mr. Jonathan Hutchinson calls the "record written in stone" in this case, one might plausibly surmise the following history, which is, of course, in this case the actual one: A lad, from 4 to 7 years of age, suffers habitually from derangement of the digestive organs, with imperfect assimilation. Lateritious deposits are common in his urine in winter, while in summer he suffers from scalding

and burning pain after passing urine indicating excretion of oxalates in excess. By and by he has renal colic and perhaps passes per urethram a few small jagged oxalate of lime calculi. The passage of these calculi is accompanied by blood in gross or microscopic quantities.

One day a stone drops down from the kidney but fails to escape from the bladder, and becomes the nucleus of the specimen in question. It now grows slowly by accretion. The white oxalate crystals absorb the pigments of urine and become brown almost to blackness. It is probable that the blackest part of the specimen consumed 15 or 20 years in its growth: that the looser, more chaotic, radiating layer outside of this formed in another 5 or 6 years: and that the deposits of the layer of urates and phosphates forming the crust, occupied the remainder of the 30 odd years of the life of this calculus. The sprinklings of phosphates throughout the stone may possibly indicate attacks of mild cystitis, calling for rest and resulting in cure. If one should predicate a marked oxalate "diathesis" in this individual, the change from the precipitation of oxalate of lime to the deposit of urates does not indicate a marked diathetic reversal, for Hutchinson points out that "conditions as regards derangement of digestive power similar to those which produce uric acid, may under slight alteration of diet, produce the oxalates" and *vice versa*.

It is an extraordinary fact, as exemplified in this case, that, though the oxalate calculus is rough and very heavy, pain and hemorrhage are not, as a rule, prominent symptoms.

I have spoken of this stone as one of unusual size because it is one of the largest, if not the largest, that has come under my observation in this country as having been removed by operation. Stone is rare in Canada as compared with European and Asiatic countries, and it is but due to the medical profession in Canada to say that when present it is usually discovered and removed before it reaches any such dimensions as this specimen exhibits. But this is a small stone compared to some recorded cases. Hutchinson gives the following as some of the largest removed during life: A stone measuring in girth $16\frac{1}{2} \times 12\frac{1}{2}$ inches, Utterhavens; Hunter, (Madras) weight 25 ounces; Morrison, (Northumberland) weight 1 pound $6\frac{3}{4}$ ounces; Sir Henry Thompson, weight 14 ounces, (avoir).

CANCER OF THE RECTUM.*

By EDMUND E. KING, M.D., TORONTO.

Surgeon St. Michael's Hospital, the Toronto General Hospital, Home for Incurables, the House of Providence.

Cancer of the rectum is a disease which starts insidiously, advances rapidly and surely, not necessarily giving rise to any startling or painful symptoms to call a patient's attention to a most serious malady before it has produced an almost incurable condition. Cancer of the rectum differs in no respect from cancer in general. The widespread ravages of cancer lead only to one goal if neglected, yet are amenable to treatment when recognized early enough. "When early enough" is most likely best defined by saying while it is yet a local disease. After it has spread into the lymphatics, and possibly been deposited in the liver or other distant parts, the chances of cure by operation are materially decreased, yet even comparatively extensive glandular enlargement should not deter us from an attempt at removal, as completely as possible. That one can have cancerous disease without pain is in no part of the body more completely verified than in the rectum. That no disease is more distressingly painful during its ultimate course than cancer of the lower gut is equally true. If we can only educate our patients in general to take advice early for piles, if we can only impress upon ourselves the necessity of not neglecting to examine every case of rectal trouble, and not prescribe in a cursory manner for all diseases of the rectum, we will soon arrive at that point where cancer of the rectum will be recognized in the early, local, and curable stage. By a widespread cutting operation, removing all the diseased, and well into the healthy, tissue, it may be entirely cured up to a comparatively late period in its existence. The removal should be complete, yet there is no necessity to sacrifice normal tissue beyond a just sufficiency.

I believe the day is close by when we will not only advocate, but insist upon, the more radical operations being undertaken at a more early period than ever before. Statistics now show results far more favorable than formerly. An operation that may cure, and positively will render the remainder of the patient's life more comfortable is not only justifiable, but is, in my opinion, demanded.

Any operative interference other than that which tends to a complete removal of the growth is only palliative, and in no

* Read before the Toronto Medical Society, 1900.

sense curative. Palliative operations are often more than justified because they relieve the pain, and allow the end to be more peaceful.

The operation of colotomy in cases of cancer of the rectum has, in my opinion, been performed too frequently at a time when removal of the growth was possible, notwithstanding that the operation of removal of the growth was a very formidable undertaking. The patient is thus debarred from a chance of cure, and permitted to live with the disease progressing to its ultimate fatal end. The operation of colotomy is by no means free from danger, it is *dernier resort*, and should, in my opinion, only be done to relieve distressing symptoms either of obstruction or pain, or both. In recent years a very great change has taken place in the opinion of operating surgeons as to the extent of gut involvement that is removable, and the more radical operations of Kraske and Kocher, with their modifications, have opened up a very wide field, and extended our grasp on the surgery of the rectum beyond the keenest hope of a few years ago. The Kraske operation has been held responsible for many failures which never should have been placed to its discredit. The operation was devised with the hope of obviating the necessity of destroying the normal function of the lower end of the rectum and sphincter in those cases in which the cancer had not already involved their structure. Yet we find report after report speaking of the Kraske, or sacral operation, in which the growth and the whole portion of the healthy gut below, including the sphincter, had been removed, and a sacral anus formed, while there was a large portion of healthy gut and sphincter yet in a normal state. This was not Kraske's original intention, nor his practice.

Possibly my experience has been too small to permit me to criticise those who make their greatest endeavor to remove all the glands that may be found enlarged in the neighborhood of the operation; but, in all my operations, including the cases which I report to-night, I have only removed those glands which came immediately into the field, or were easily detected by the finger, without rummaging about and possibly setting up foci of infection by unnecessarily prodding and poking here and there. I think that the gland enlargement may be due as much to inflammatory irritation as to the direct infection from the malignant growth, and that those glands which are simply enlarged from inflammatory conditions will subside without any malignant development. I am satisfied that there are cases in which it is absolutely impossible to perform any radical operation: but those cases are comparatively few, and it is to be hoped will become fewer.

Michael G., age 67. Family history free from cancer. He has served in the British army in India: had ague. Has never had syphilis. Been a free liver for years, and indulged in intoxicants freely.

In January, 1893, he first noticed a soreness about the anus and extending up the rectum: this rapidly got worse, and free hemorrhage accompanied each movement of the bowels. In April, 1894, he went into Toronto General Hospital, and was operated on twice during a three months' stay, leaving there in June, 1894, with the wound still open. In December, 1894, he came into my service at St. Michael's Hospital, with pain, bleeding, and a growth at the anus extending up the bowel a short distance, less than one inch. I thought it possible to remove the growth without doing a wide operation, but was not successful. The continual passage of feces over the operated area delayed healing, yet he was discharged from the hospital in July, 1894, with a partial control of sphincter. In January, 1895, he was re-admitted with a return of the growth. This time I did a colotomy as a precautionary measure before excising the growth, which was done freely. He was discharged in July, 1895. He was free from any return and comfortable, with a water pad truss, until February, 1897. In July, 1897, there was a growth at the margin of the skin and mucus membrane about $\frac{1}{2} \times \frac{3}{4}$ inch, which looked suspicious: this was removed. On microscopical examination it was found not to be carcinomatous. The continuity of the gut was restored in August, 1898. He has remained free from any recurrence. There is a contracted fibrous ring around the lower bowel opening which acts somewhat in the capacity of a sphincter. He was well and free from any recurrence in January, 1901.

Lizzie McL., age 28. Maternal grandfather had epithelioma of lip, removed, cure: died from other cause many years after. Otherwise, family history good.

When about seven years of age she was hit with a large stone on the hip. This accident was followed by pain and swelling in a few days, which increased in severity. She was confined to bed for a year before she was able to go around. In about six months she was again obliged to lie up, and an abscess developed and broke in the groin. The discharge continued, and one place after another broke down around the hip until there had been four or five sinus openings, one closing before the second would open. She was in bed about a year and a half or two years at this time. The wound on the hip, which had always discharged a little, even while able to go about, healed up for a few months, then her left shoulder broke out and was very sore for some months. Another abscess developed

half way between the hip and the knee. She was so completely depleted that her recovery was dispaired of. She slowly recovered, and her shoulder and hip healed. She maintained fair health for a long time, then her right arm got sore and kept her in bed for three months: was up for three months, then in bed again with the other arm three months. Up again, and had good health in every way until about four years ago, when in January, 1894, she took la grippe, and the hip got bad again and kept getting worse. She went into St. Michael's Hospital in my service.

When I first saw her there was a very large fungating mass on the left side involving the anus, extending nearly to the great trochanter, high up in the rectum, involving the labial

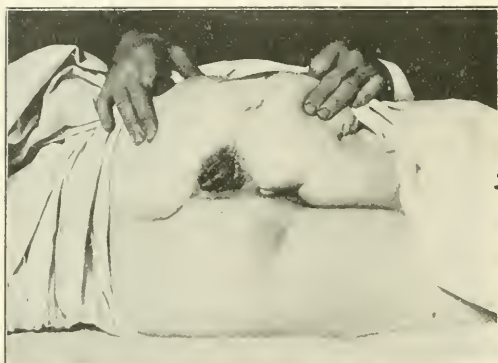


wall and the vulva. (Fig. 1.) A hard substance was found to project into the bowel throughout the growth, which proved to be part of the coecyx. In all probability this irritation was the exciting cause of the growth taking on a malignant character in the rectum. The operation was most formidable and the mass of tissue removed enormous. The greater and lesser sciatic notches were exposed, and a large area had to be left to granulate. She made a slow but uneventful recovery, and gained flesh rapidly. A small recurrence was removed during the first year, but otherwise she remained free from recurrence. The condition after the second operation is well seen in the illustration (Fig. 2). The urine always contained some albumin, and about the time of the second operation she developed uremic symptoms, with convulsions and blindness. These symptoms

were by free bleeding and treatment, since which time she has been able to get about and do light work without recurrence of cancer, but a marked victim of Bright's disease.

Mrs. C., age 74, Scotch. Family history good, free from cancer.

She had the usual diseases of childhood. Menstruation began at the age of 14. She had several attacks of inflammatory rheumatism, with many joint involvements, before she was 25. Family, three children and one miscarriage. Always suffered from obstinate constipation. At the age of 68 she had a severe fall, falling down thirteen steps and bruising herself in the gluteal region very badly. In April of the succeeding year she developed severe pain over the left iliac region and lower



part of spine: a great tenderness over the left side from rib to ilium, tenesmus was very distressing. This was relieved by something breaking in the bowel, followed by a free discharge of pus. She at once took advice. A cauliflower growth was found in rectum and immediate operation advised. She was admitted to Toronto General Hospital, April 15th, and operated on by one of the staff. A portion of the lower bowel and anus was removed (said to be $\frac{1}{2}$ x 2 inches). She made a good recovery, with loss of pain and tenesmus for over one year, although stools passed involuntarily. In July she was admitted to the Home for Incurables for recurrence of the cancer, and came under my care. On examination I advised another operation, which she acquiesced in. The recurrence was removed and patient did well, but in three months a

growth was found at edge of anus and removed: this, on examination, proved not to be cancerous. In December, 1897, there was undoubted recurrence in the bowel, and a third operation performed, removing a large area of the posterior wall of the rectum. The peritoneum was opened but the recovery was uninterrupted. The growth recurred in the skin and spread to the valvæ, but as you will see the bowel is free from any recurrence. (Specimen shown.) If more skin had been removed at the time of the last operation it is quite possible that the recurrence would not have occurred. It is very satisfactory to note, however, that the bowel is entirely free from any involvement in the recurrence.

John K., age 56. Father died, age 90, mother over 80. Grandparents on both sides died of old age. One sister lived to be 58 years of age, in good health. Two brothers died in childhood, and one brother living. Patient never had any serious illness, although when following his trade as shoemaker he always complained of severe pain over the sacrum. About ten years ago he had what he terms weak spells, which came over him whenever he did any heavy lifting. There was no trouble with the stomach or bowels until about eighteen months ago. In 1898 he noticed that large quantities of blood passed with each evacuation of the bowels. This he attributed to piles, and took no advice upon the matter. In August, 1899, he first took advice, when the serious nature of his trouble was recognized, and he came under my care in September of the same year. I operated on October 11th, for the removal of a cancerous growth involving the anus and lower $3\frac{1}{2}$ inches of the bowel.

The Operation.—After making an incision around the anus, and following up the growth, it was found that it would be necessary to extend the incision: this was done along the median line and the coccyx removed. After getting well above the growth it was excised and the gut brought down and sutured to the upper angle of the incision. On December 5th. a granulating, suspicious-looking mass was noted at the upper end of the wound, involving the skin and mucous membrane junction. It was feared this was a recurrence, and on the same date I excised this area. On microscopical examination it proved not to be a recurrence but a granulating mass.

[NOTE.—In October, 1901, I endeavored to secure for the patient some control over the bowel movement by twisting the rectum. The adhesion made the dissection difficult, but I succeeded in releasing the gut and making nearly a complete turn. The wound healed nicely, but it is too early to speak of results.]

Mrs. C., age 54. Nothing special in family history. Married

at the age of 24. Has had two children, living and healthy, confinement normal. Menopause complete at 43. Six years ago had nervous prostration with catarrh of mucous membrane throughout the intestinal tract. She had generally suffered from constipation, but was regular for some months previous to passages being accompanied by blood, the latter condition being preceded by days of continual backache. Natural discharge of bowels became fragmentary and finally obstructed. She gradually lost flesh and strength, and sought advice believing that her malady was of a more serious nature than she had thought. I saw her in consultation with Dr. B. Field in the latter part of September, and advised an immediate operation, which was agreed to. The condition was found on examination not to involve the sphincter, nor the lower three inches of the rectum. Pretty nearly as high as the finger could reach, without chloroform, there was an annular constriction of the bowel, hard and irregular, in the posterior portion of which was situated a small opening. It was possible to pass the finger tip only into this opening, and impossible to feel the upper end of the growth. One could make out that the growth was movable, also it presented the idea that it did not involve many inches of the gut. By palpitation from above through the abdominal wall, I was satisfied that the growth did not extend to the pelvic brim. Below the growth there was a great ballooning of the bowel. Her general condition was one of marked cachexia and considerable emaciation.

The operation, a modification of the Kraske incision, was done and the whole rectal tube freed, when it was found that the growth was about $3\frac{1}{2}$ inches long, its lower border beginning three inches from the sphincter and involving the whole circumference of the rectum. The bowel was shut off above and below the growth by clamp, and the intervening portion excised. The weakened condition of the patient's pulse at this point was such that we abandoned our original idea of suturing the walls of the intestine, and we resorted to Murphy's button. There are two varieties of buttons, good and bad, as Dr. Murphy very aptly pointed out when he was in Toronto two years ago. Unfortunately, in the button that we used the spring was weakened. There was no trouble in adjusting the button and approximating the ends of the gut and closing the large sacral wound, leaving drainage above and below. The anterior and lateral walls of the gut united well, but the button lost its grasp at the posterior wall, and at this point it failed to unite. A small fistula still exists. This has since entirely closed. The large wound became infected, although not so much as one would anticipate, and was slow in healing. There was nothing to note particularly in her subsequent

recovery, which she made slowly but well. I examined her yesterday, that is the 21st January, a very short period undoubtedly after the operation, but I am very gratified to report that there is at present no evidence of any recurrence of the growth. There exists, at the point of union, however, a projection from the anterior wall of the gut like a curtain or valve (a reduplication) that is acting as a barrier to the free movement of the bowels. The force from the sacral curve is expended against the upper portion of this valve, and consequently the stream does not pass along the canal freely. The lumen of the gut at this portion will admit my thumb, and is to-day more patulous than when she left the hospital in December.

She speaks of a peculiar condition, and says that she feels as if there existed two ani: and she has an anesthetic area in the rectum which appears to be equal approximately to the removed portion. She has normal control over the bowel movements. The sensation of having evacuated the bowel completely is experienced before the act of defecation is complete. The passage of feces over the anesthetic area producing no sensation, the act is considered complete: but as soon as these feces reach the sensation area below a second desire is produced, followed by movement.

In making a report of the foregoing cases, I have endeavored to show the true conditions as they have presented themselves. The frequent repetition of operations may, to some minds, militate against the advisability of the procedure, but when we look at the results, I am satisfied that the operations were more than justifiable. I believe that we will learn to cut wider as our experience widens, and that in the future we will have fewer recurrences. In these cases, if a cure cannot be attained, the relief from pain, nauseating odors, and other distressing symptoms, are sufficient to justify us in operative interference. In many cases in which cure is not possible, but relief from symptoms is probable, I am satisfied that the procedure should be undertaken, and the period of extended life made more bearable. We must pay more attention to rectal cases: we must examine them more thoroughly and earlier, and just as soon as the diagnosis is made, operate—remove the disease freely. The late discovery of rectal cancer is a blot on the reputation of some physician, and I believe in the future, if we make our examinations earlier and more thorough, that these blots will be fewer and further between.

PELVIC LESIONS IN RELATION TO THEIR DISTINCTIVE EFFECTS UPON MENTAL DISTURBANCES.

BY A. T. HOBBS, M.D., LONDON, ONT.

The gradual evolution of the treatment of the insane unfolds factors in etiology that hitherto were unsuspected or given but little credence to as possible disturbers, either directly or indirectly, of the mental equilibrium of the sane. The surgical treatment of organic disease in patients mentally deranged was followed by mental phenomena so marked that the inference was reached that there must exist a relationship between certain physical lesions and mental disease, as the removal of the former was succeeded by an improvement or subsistence of the latter. This occurred so frequently that it could not be dismissed as mere coincidence, but it positively determined that these bodily lesions were in themselves responsible for the initiation or maintenance of insanity *per se*.

Until within recent years female lunatics received precisely the same attention and treatment as that accorded to male lunatics. That insane females possessed either an ovary or a uterus was either overlooked or ignored, and the possibility of either of these sequestered organs being grossly diseased seems never to have been contemplated by those into whose charge was committed the care of the insane. In explanation it must be said that without close observation or systematic gynecological investigation it was practically impossible to definitely state that pelvic disease existed, much less could be diagnosed in a female lunatic. For this reason, and because of the woman's mental infirmity, with its accompanying delusion, or mania, or stupor, or dementia, which rendered her unable to rationally complain of physical distress as would a sane woman, it was hard to convince the majority of alienists that 15 or 20, or 25 per cent. of all insane women were suffering from one or more pathological lesions of the organs of the reproductive system.

A consideration of the statistics of institutions devoted to the care of the insane will show, by comparison of sexes and of their civil state, that among their lunatic populations there are more single than married men, and more married than single women. Why is there this preponderance of the single in the one sex and of the married in the other? The solution

of this, I believe, is that single men lead more irregular lives than married men, and as a result are more liable to dissipations and exposures leading up to disease with subsequent mental as well as physical collapse; also that married women preponderate over the single of their sex, owing to their liability to injury and disease entailed by maternity, with its sequence of ill-health and nerve depreciation, ending up so frequently in mental degeneration. That this is true, as experience has shown, should it not emphasize the necessity of a systematic examination of at least all married female insane when under treatment to determine the presence or absence of gynecic complication, whether the patients are residents or not of institutions or sanitariums?

The result of pelvic examination of a large proportion of the female population at the Asylum for Insane, London, disclosed at least the presence of organic disease or abnormalities in 25 per cent.

The gynecological examinations were uniformly conducted with the aid of an anesthetic. Experience has taught us that the most suitable and reliable anesthetic for the insane was ether, preceded by the inhalation of nitrous oxide gas. This is the only method of any value of arriving at a proper diagnosis of the existence and nature of disease of the pelvic organs among the female insane.

As a result of these investigations it was found that 253 out of 1,000 females who were residents of the institution during the past six years had some pelvic disease or abnormality that needed gynecological treatment. Medical and other treatment only temporized with these lesions, and was found difficult to carry out and non-productive of result. The only success obtained in combatting these diseases was that obtained through surgical means.

The surgical methods employed were those that are in daily use by all reputable surgeons for treatment of similar lesions in the sane. Many a patient required two or more operations to complete the treatment in her case.

To ascertain the proper value of the results succeeding the removal of the different lesions, the cases will be classified into groups, the principal gynecological lesion in each patient determining the position in the classification.

I. OVARIAN DISEASE.

The total number of cases who received treatment for disease of the ovaries and tubes was 41. The treatment in each necessarily varied according to the disease or the complication present. To accomplish this it was found necessary to perform in

seven, hysterectomies—four by the abdominal route and three per vaginam; in 25 cases single or double oöphorectomy was done, and in the remaining nine a part of one or both ovaries was preserved after removal of the diseased portions. Following these operations for ovarian disease there occurred two deaths, or 5 per cent., both dying of complicating pneumonia, one on the seventh and the other on the twelfth day after operation. Good physical recoveries resulted in the remaining 39, or 95 per cent.

The subsequent mental history in the 39 patients who survived the operation was very good. The time of mental recovery varied from three months to one year.

The mental classification is summarized as follows:

	Cases.	Recoveries.
Acute mania	11	7
Chronic mania	23	9
Epileptic mania	2	0
Folie Circulaire	2	1
Psychocoma	1	1
Acute melancholia	3	2

This gives a total of 20 recoveries, or 49 per cent. The duration of the insanity in these 20 averaged eighteen months. Over and above this there were 10 patients, or 25 per cent., who showed a distinct mental improvement, although the average length of insanity in these 10 exceeded three years.

The history of these ovarian cases disclosed heredity in 16, or 39 per cent. From this it will be seen that the introduction of modern surgery immensely benefited 30 women, representing 73 per cent. of the ovarian cases, by the reduction of disease tissue or of the removal of the entire organ whenever found necessary.

II. ABNORMAL DISPLACED UTERI.

It was found on examination of 66 patients that the main lesion presented was a displaced uterus. The abnormal position of this organ varied from simple retroversion to complete procidentia. To correct the pathological positions of this organ it was found necessary to shorten the round ligaments in 54 patients, to suspend the uterus per ventrum in 7, as well as to perform total extirpation in 7 others where the procidentia was complete.

These patients did not all do well, as death succeeded operation in two, one dying from secondary hemorrhage induced by the patient pulling out the ligatures, and the other from bed-sores two months after treatment. Both of these occurred after vaginal hysterectomy.

A synopsis of the mental condition and recovery rate of these 66 patients is tabulated below.

	Cases.	Recoveries.
Acute mania.....	20	15
Chronic mania.....	22	3
Epileptic mania.....	1	0
Puerperal mania.....	7	4
Acute melancholia.....	9	5
Chronic melancholia.....	1	1

From this table it will be seen that the mental condition was restored in 28, or 42 per cent., with an average duration of insanity of 1 year and 10 months. Besides these recoveries, in 15 others, or 23 per cent., the mental condition was more or less improved after correcting the displaced organ. This makes a total of 43 patients, or 65 per cent., whose condition both physically and mentally responded to proper treatment. Of these 66 cases, who had a mal-position of the uterus, it was found that 32, or 48 per cent., were tainted by hereditary insanity.

III. TUMORS, MALIGNANT AND BENIGN.

Gynecological examination of 16 insane women disclosed as a complication of their insanity an acquired growth. Of these 9 had fibroid tumors of the uterus, 2 showed cervical epitheliomas, 1 a sarcoma of the body of the uterus, 2 had tuberculous disease of the pelvic organs, and 2 had inflammatory deposits in and around the uterus. For the treatment of these foreign bodies there were performed 8 abdominal hysterectomies, 1 vaginal hysterectomy, 1 myomectomy, and 3 celiotomies, with use of saline lavage in the tubercular cases.

Following operation in these 16 patients there resulted 1 death from exhaustion on the third day. The other 15, however, made good physical recoveries.

As to the mental features and number of recoveries, the accompanying table will show:

	Cases.	Recoveries.
Acute mania.....	1	1
Chronic mania.....	11	1
Epileptic mania.....	1	0
Chronic melancholia.....	3	0

It will be seen by this analysis that only 2, or 12 per cent., recovered their reason subsequent to the removal of these physical lesions. The average duration of insanity in these 2 recoveries prior to operation was three years. There were 6 others, representing 37 per cent., whose mental status was improved. These latter, however, showed an average duration of insanity of over 5 years. Only 3 out of the 16, or 19 per cent., disclosed any heredity.

IV. DISEASES OR INJURIES OF UTERINE CERVICES.

In 60 patients the main lesion which demanded surgical relief was a diseased or injured cervix. Nearly all of these cases were complicated by either a sub-involuted uterus or an endometritis. In 19 of these 60 cases there was in addition to the cervical lesion a complete or incomplete tear of the perineum. For the necessary relief of the diseased cervixes there was carried out 52 amputations, 5 trachelorrhaphies, and 3 underwent treatment by the method described by Dudley for the relief of stenosis of the internal os. Restoration to bodily health occurred in all. The accompanying table shows the mental state, and the recovery rate of these 60 patients is appended.

	Cases.	Recoveries.
Acute mania.....	17	12
Chronic mania.....	30	5
Puerperal mania.....	3	0
Epileptic mania.....	1	0
Folie circulaire.....	2	0
Chronic melancholia.....	3	1
Acute melancholia.....	1	0

Following uterine and cervical treatment there was complete mental relief in 19, or 31 per cent. These showed an average insanity duration of 15 months. Besides these recoveries 14 others, or 23 per cent., improved mentally. A history of heredity in these cervical cases complicated 21, or 35 per cent., of the whole number.

V. DISEASES OF THE UTERINE BODY OR ITS LINING MEMBRANE.

On examination of 52 patients it was deemed necessary to curette for the reduction of a sub-involuted uterus, or the correction of an endometritis. Some of these when under previous observation were noted as being menorrhagic, or were suffering from dysmenorrhea. All these patients so treated improved in physical health. The mental results were as follows:

	Cases.	Recoveries.
Acute mania.....	23	14
Chronic mania.....	15	1
Puerperal mania.....	3	2
Acute melancholia.....	5	3
Chronic melancholia.....	4	3
Puerperal melancholia.....	2	2

From this table it will be seen that the mental recovery rate was 25, or 48 per cent., and their average length of insanity was 10 months. Besides this, 11, or 21 per cent., showed mental improvement, their insanity averaging $3\frac{1}{2}$ years.

The question of heredity showed itself in the histories of 15, or 29 per cent., of the 52 patients so treated.

VI. INJURIES TO THE PERINEAL BODY.

Lacerations of the perineum of all degrees, accompanied by varying prolapse of the vaginal walls, was found to be the main lesion in 18 patients. Most of these cases had also to some extent sub-involution of the uterus, which was corrected at the same time as the repair of the trauma to the perineum. The surgical treatment benefited these patients materially, as was observed by the rapid improvement in general health and subsequent mental tone. The classification of the mental disease and subsequent history of these 18 cases was as follows :

	Cases.	Recoveries.
Acute mania.....	6	2
Chronic mania.....	4	0
Puerperal mania.....	2	1
Acute melancholia.....	4	3
Chronic melancholia.....	2	1

This summary shows that 7, or 39 per cent., recovered mentally, succeeding the restoration of the injured perineum, and complications. The average duration of their insanity was only 9 months. Of the others, 3, or 17 per cent., improved whose duration of mental enfeeblement exceeded 9 years. Heredity complicated only 4, or 22 per cent., of these 18 perineal cases.

It is necessary to state that the six divisions as given are somewhat imperfect, as often an ovarian case was complicated by a displaced uterus, or a displaced uterus had in addition a lacerated or diseased cervix, or a diseased cervix was often accompanied by a tear of the perineum. A more limited classification may be devised by taking the ovarian lesions as one, the uterine displacements and diseases of the body and cervix together as a second, the injuries of the perineum as a third, and the tumors as a fourth class. This arrangement will summarize as follows : Of ovarian disease there were 41 cases, with 20, or 49 per cent., recoveries : of uterine lesions there were 178 cases, with 72, or 40 per cent., recoveries ; of injuries to the vaginal outlet there were 18 cases, with 7, or 39 per cent., recoveries, and there were new growths in 16 cases, with 2, or 12 per cent., recoveries. From this division it will be noted that the pelvic lesions having the greatest effect upon mental alienation were those in which there existed changes in the ovarian structure causing an interference with ovarian function. The next most potent pelvic factor was disease of uterus, and third most important was injury to the *via vaginalis*, while fourth and last new growths did not seem to disturb mental stability except in a small percentage of cases.

Two simple divisions may be made of the whole number by grouping together all ovarian and uterine lesions as inflamma-

tory. This will show that out of 209 cases supposedly inflammatory that 92, or 42 per cent., returned to their normal mental state. Then group all the remainder, including new growths and injuries to the perineum as non-inflammatory, and these will make a total of 34 cases with a recovery rate of only 9, or 26 per cent.

An epitome of the various mental diseases which were the main lesions in the 253 patients illustrates briefly the phases of lunacy that were the most susceptible to alleviation on the removal of gynecic sources of irritation.

The acute insanities were naturally the most amenable mentally to favorable treatment of pelvic ailments as the post-operative results already given have shown. In the acute mental affections the recoveries from mania took the lead with a percentage of 61, then followed melancholia with 58 per cent. of recoveries, and puerperal insanity the last, with 53 per cent.

In the chronic class melancholia yielded much better results to surgical treatment than mania, there being 46 per cent. recoveries in the former to 25 per cent. recoveries of the latter.

Of the four cases of folie circularie, or circular insanity, only 1, or 25 per cent., was mentally restored.

Finally, of the 5 patients treated by these surgical methods 91 were complicated by a hereditary tendency, or a percentage of 36.

In the former presentations of this work before medical societies some doubt was expressed as to the correctness of previous similar statistics and we were said to be ultra-enthusiasts in this gynecological work. It was claimed that "we looked for disease and found it." In addition to this there were some who endeavored through their criticisms to imply that we were guilty of unnecessary surgical interference.

These criticisms go beyond the rubicon of legitimate argument and tend to cast odium upon the work that was done.

Regarding the want of faith in our statistics, I desire to place on record the following facts, which will confirm in a great measure the figures and deductions already given in detail.

For the past 30 years annual reports were presented to the Provincial Government of all official statistics in connection with the varying movements of the population of London Asylum. These statistics are substantially correct and are subject to government periodical supervision. The official records show that for the bi-quintennial period previous to the introduction of systematic surgical treatment the average annual rate of discharges of patients recovered and improved calculated upon the admissions, was for the male residents 35, 23 per cent., and for the female 37.5 per cent.

For the third quintennial period, during which gynecological

surgery was in vogue in addition to the ordinary methods of treatment, it was found that the annual rate of discharges among the men differed very little from that of the previous two quinquennial periods, being 35.92 per cent. It was discovered, however, that the women during the third quinquennial period had advanced from 37.5 per cent., the average of the previous 10 years, to 52.7 per cent., or a gain in the discharge rate among the women of 35 per cent. This was certainly due to the surgical treatment of pelvic disease which existed so largely among the female population, as the other methods of combatting disease were practically the same as in previous years. An official analysis was also made concerning the number of re-admissions of those who had been discharged during this third quinquennial period. It was found that although many more women had been discharged than men the number of re-admissions were the same for each sex, being 19 women and 19 men. This undoubtedly verifies the stability of the mental cases who recovered after the removal of complicating utero-ovarian disease, and still further qualifies the assertion that these diseases play an important part in the etiology of insane women.

The charge that unnecessary surgical interference had been done in these cases is absurd as well as untrue, as prior to operation the patient's family physician was consulted and asked to be present at each operation. This invitation was often accepted and unqualified approval of the work done was uniformly expressed by these visiting physicians. In addition to this the written consent of the nearest relative was always obtained to even the most minor of operations. These were some of the safeguards which surrounded these patients from unnecessary surgical interference.

The value of gynecological, as compared with general, surgery is proved by the results obtained after operations for the radical cure of hernia. In 39 patients of both sexes who were afflicted with either a ventral, umbilical, inguinal, or femoral hernia, a radical cure was attempted, and I am pleased to say with almost uniform success as regards the obliteration of this physical lesion. The mental results succeeding the operation for hernias were almost *nil*, as no mental recovery occurred, although decided improvement in the general tone of these patients was observed.

In conclusion, let me say that there should be no doubt in the minds of physicians—general and special—as to the benefits that would accrue from the introduction and proper observance of aseptic gynecological surgery in institutions devoted to the care of the insane. Also that the state should see that its wards are properly safeguarded against unnecessary operations, such as the removal of normal ovaries for their possible effect

upon a disturbed mental condition. That this has been done occasionally by surgeons I have reason to know, and the results have been decidedly harmful not only to the patients but to the establishment of gynecology as one of the regular methods that should be employed in institutions where so many women are incarcerated, and who, without the aid that gynecology can give, are doomed to suffer untold misery as long as their existence endures.

Selected Articles.

GASTROPTOSIS.

BY ALEXANDER MCPHEDRAN, M.D.

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This condition is so frequently encountered and is in many cases accompanied by such marked discomfort that its consideration is of much importance. With the displacement of the stomach there is also always displacement of some of the other viscera, sometimes of all of them, general splanchnoptosis. It occurs at all ages and in both sexes. In a boy of 7, examined since January 1, 1901, the greater curvature of the stomach was a little below the umbilicus, and the right kidney could be easily palpated during inspiration. He was rather anemic, had an irregular appetite, and was not vigorous. In his case the position of the stomach may have been congenital.

In regard to gastroptosis two errors are common: first, the opinion that the condition is infrequent; and second, that when it does exist, it must necessarily give rise to grave disturbance, and form part of that medley of symptoms known as Glénard's disease. That the condition is very common any one can verify for himself by careful examination of patients presenting symptoms of malassimilation with or without digestive disturbances. Not infrequently, ptosis of the stomach is met in persons presenting no such symptoms, just as many persons have prolapsed kidney without any discomfort arising therefrom.

The symptoms may be local or general, or, more commonly, both combined. Local symptoms arise from digestive disturbances, especially from gastric motor insufficiency with consequent prolonged lodgment of food in the stomach. In most of these cases there is also excessive secretion of HCl, causing epigastric distress, acidity, flatulence, and general depression. These symptoms may be very slight in degree or they may be severe, at times causing much distress. In these cases relief is obtained by stimulating gastric peristalsis, so that the stomach is emptied before each recurring meal; by suiting the diet both as to quality and quantity to the powers of the stomach; and endeavoring by means of massage, exercises, suitable medicines and hygienic conditions, to restore the stomach, as well as the general physical state, to a normal

condition of function. The following case may be briefly cited to illustrate these statements:

M. E. S., aged 51, five feet eight inches in height, but only weighing 128 pounds, had been ailing for some years with epigastric distress, flatulence, debility, irregular appetite and constipation. Five hours after a light breakfast "splash" was easily demonstrated in the epigastrium. The tube was passed and five ounces of grumous material containing pieces of white-of-egg and remains of bread were removed from the stomach. The stomach was inflated and the lesser curvative found to lie below the umbilicus, HCl was present but in deficient quantity. The right kidney was easily palpable. The abdomen was almost flat so that an abdominal support would be of little use. His diet was restricted to one egg and a piece of toast for breakfast, a glass of warm milk at 11 o'clock, a little tender meat, or fish, and one vegetable for luncheon, a cup of soup or fluid beef at 5 o'clock, and a dinner at 7 o'clock similar to the luncheon. The abdomen was well massaged morning and night after the patient drank a glass of hot water. This was followed by systematic exercise of all parts of the body, and especially of the abdomen. Strontium bromid was given before meals and strychnin with some antiseptic such as resorcin, bismuth naphtholate, sodium salicylate, etc., after meals. As soon as the epigastric distress was relieved dilute hydrochloric acid was substituted for the bromid. He improved satisfactorily, and in a few months his weight was 150 pounds. The lesser curvature of the stomach was raised somewhat above the umbilicus, but care as to diet was necessary to prevent retention of food in the stomach, as shown by the splash.

When constitutional symptoms are marked, the condition is really one of neurasthenia with symptoms of digestive disturbances predominating. In the treatment of these cases the patience of both patient and physician is certain to be taxed. The treatment is that of neurasthenia, plus such measures as are necessary to correct the digestive derangement. The latter can often be overcome and the digestive function restored to a fair degree of efficiency long before the symptoms referred to the stomach are relieved, or the general neurasthenic condition materially improved.

It is usual to direct a well-fitting abdominal support for such cases: if the abdomen is prominent, in which condition the walls are relaxed, such a support does good, and in many gives a great sense of relief. It supports the abdominal contents and tends to prevent further prolapse. In many cases, however, the abdomen is flat, or even retracted. In these a support is of little, if any, service. In fact, in a number of

cases it proves irksome. In all cases, probably massage and suitable exercises of the abdominal muscles constitute the most effective means to relieve the symptoms and restore the stomach to healthy function. By these means the circulation in the abdominal viscera is improved and peristalsis stimulated, consequently renal excretion is increased and the processes of digestion and assimilation improved.

The prognosis in gastroptosis is fairly illustrated by the following case:

J. R., aged 27, a draughtsman. Last autumn he was very neurasthenic from overwork, and was thin, anemic and much depressed. The stomach was prolapsed so that the greater curvature was three inches below the umbilicus, as shown both by the gastrodiaaphane and inflation. There was a moderate degree of hyperacidity. The treatment consisted in a regulated diet similar to that directed for M. E. S., massage exercises, out-door life without fatigue, and strychnine with antiseptics after meals. He worked hard all winter supervising the repairs of an electric road. On examination this spring the stomach was found to be above the umbilicus and its digestive power much improved. His general condition is good, although he remains thin.

The following conclusions may be offered:

1. Gastroptosis frequently exists without giving rise to any discomfort. So long as the functions of the stomach are performed efficiently no symptoms will arise from its abnormal position.

2. The symptoms of gastroptosis are due to the protracted retention and composition of food in the stomach with the local irritation and constitutional poisoning resulting therefrom.

3. In the condition known as Glénard's disease the gastroptosis or splanchnoptosis plays only a part, often a minor one, in the production of the symptom-group. In not a few instances the splanchnoptosis is rather the result than the cause of the condition.—*Abstract American Medicine*.

THE TREATMENT OF NASAL CATARRH BY THE GENERAL PRACTITIONER.*

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I have long entertained the view that the general medical practitioner neglects to treat his patients for catarrh and sends them to a specialist when he could successfully manage these himself. In fact, the treatment of catarrh is very simple and the results which follow correct and systematic treatment are very satisfactory. In practice, two forms of chronic nasal catarrh are met. These are hypertrophic rhinitis and atrophic rhinitis.

The hypertrophic form is more generally seen, and is characterized by a thick mucous discharge from the nose, great liability to colds, obstruction of one or both nostrils, which forces the patient to breathe through his mouth, nasal intonation of the voice. There is more or less headache and the sense of smell is lost or impaired. There is dryness of the throat, deafness and other symptoms showing the extension of the disease to neighboring organs. Exostosis of the osseous structures often is seen.

Atrophic rhinitis (ozena) is characterized by a sense of dryness in the nose and throat, a thick, purulent discharge and the expulsion of discolored crusts and an offensive putrid odor. The sense of smell is impaired and the patient is weak and anemic.

The mucous membrane is dry and glazed, but in advanced cases ulceration and necrosis are present.

The treatment consists of applications directly to the diseased area and the administration of such internal remedies as will correct any co-existing disease or morbid state. In some cases where there is occlusion by exostosis the resources of surgery must be invoked.

Let me examine more in detail the treatment of the types of nasal catarrh.

In simple chronic hypertrophic rhinitis the results of treatment will be most flattering. In a case attended with no constitutional disease nothing is necessary beyond having the patient spray the nasal mucous surface with a solution composed of equal parts of water and hydrozone every three hours.

If the case has persisted some time and the patient has an amount of mucous discharge, I have him take twenty drops

* Abstract from *St. Louis Medical and Surgical Journal*.

of balsam of copaiba four times daily. The hydrozone is not only a disinfectant and germicide, but its curative action on the inflamed mucous membranes is speedy and is not equalled by any other drug I have ever used. When the patient is anemic I have him take iron, and any other drug is used when it is called for by any associated disease or morbid condition, but the hydrozone spray is used in all cases.

In the atrophic variety we shall have to use the same local application. The hydrozone at once overcomes the offensive odor and takes off the purulent crusts.

These cases must be treated with cod liver oil, iron and such other remedies as will bring up the general health.

Here are a few clinical histories:

Mr. R. H. M., aged 60, had been a sufferer for two years. There was no exostosis, but when he had a cold he could breathe only through his mouth. He was in good general health, so I had him buy an atomizer and use a spray composed of equal parts of distilled water and hydrozone. He sprayed the mucous surface of the nose every three hours. On this he made rapid improvement and in three weeks had no further symptoms.

S. M. T., age 18, had chronic hypertrophic nasal catarrh in which the mucous discharge was very abundant, and this was associated with dryness of the throat and constant desire to hawk and spit. She used the hydrozone and water spray, and took fifteen drops of balsam copaiba three times daily. I had the pleasure of seeing this young woman go along to complete recovery in a period of six weeks.

Mrs. R. J. C., age 49. This lady had atrophic rhinitis and as soon as she came near you the putrid odor asserted itself. Her general health was lowered. I had her use the hydrozone and water spray, and take cod liver oil internally. She spent last winter in Cuba, and has just gotten home greatly improved in general health and her catarrhal disease is better.

She says the spray effectually destroys the disgusting odor and that scarcely any discharge now appears.

I expect to see this patient entirely well in several months.

THE TREATMENT OF SYPHILIS, WITH SPECIAL REFERENCE TO THE BEST METHODS OF ADMINISTERING MERCURY.*

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The author calls to mind the fact that mercury has been used in the treatment of syphilis for over 400 years, and there are few physicians to-day who do not use it in some form. Although the method of treatment with mercury is still discussed, he is firmly of the opinion that there is no hope of eradicating the disease unless the full dose is given constantly for something like three years. The treatment should begin just as soon as the diagnosis can be made. There is no ground for supposing that enucleation of the chancre has the effect of aborting the disease. If a positive diagnosis cannot be made from the appearance of the initial lesion, general tonic treatment should be instituted.

In some cases the protiodide controls the symptoms, but in the majority it is of very little use. Experiments with mercuriol were conducted at Bellevue Hospital for eight and a half months, with 180 cases; the histories of ninety-five of these are recorded. The remainder could not be kept under observation, and are therefore passed over. The dosage of the mercuriol, regulated either by reaching the point of tolerance or control of the disease, varied from one half to six grains. In sixty-four of the ninety-five cases the disease was controlled as follows: In two weeks, eight; three weeks, twelve; four weeks, fourteen; five weeks, six; six weeks, five; seven weeks, two; two months, eight; ten weeks, two; three months, five; and four months, one. The remainder are marked thus: decidedly improved, seventeen; improved, eight; no improvement in two weeks, three; no improvement in four weeks, one; and no improvement in three months, two. The latter were all dispensary patients and it is uncertain whether they took their medicine regularly.

The writer states that his plan was to increase the dose steadily from one grain until the symptoms were controlled, or until there was a slight tendency on the part of the teeth and gums to become tender. If the symptoms were not controlled before the physiological effect of the mercuriol made itself felt,

* Abstract of an original paper by the author, in *The Lancet* (London, Eng) October 19th, 1901.

small doses of potassium iodide were added, and in every case where the mercuriol was taken according to directions, with the exceptions noted above, the symptoms were controlled.

In sixty-seven out of the ninety-five cases tabulated, no other medicine than mercuriol was given. In fifteen out of the remaining twenty-eight, the addition of iodide of potassium was found to be sufficient to control the disease, while in six others the addition of an iron tonic sufficed for this purpose.

The cases are not reported at length, but a few of the more remarkable results and some cases in which other medicines failed to control the disease are briefly mentioned.

Case 1 had been taking bichloride for one month with very little improvement. Under mercuriol, three grains maximum dosage, the symptoms were under control in five weeks.

Case 2 had been under biniodide of mercury (one-sixteenth of a grain) and potassium iodide (five grains), which caused iodism. His symptoms were controlled in one month under half a grain of mercuriol.

In Case 3 unguentum hydrargyri had failed to control the disease. The patient was put on mercuriol and the dosage pushed up to six grains three times a day. The disease was thoroughly under control in seven weeks.

Case 4 had been on three-eighths of a grain of biniodide of mercury and twenty grains of potassium iodide for two months. The medicine caused nausea and vomiting. Having been put on mercuriol and the dosage gradually increased to five grains three times a day, the symptoms were controlled in three weeks.

Case 5 had been taking hydrargyrum bichloride (one-twelfth of a grain) three times a day, under which an eruption on his face had faded, but the eruption on his body still persisted. His symptoms disappeared in two weeks under a maximum dose of three grains of mercuriol three times a day.

Case 6 had been on bichloride of mercury (three-sixteenths of a grain) for three months, in spite of which he had palmar syphilide of an eczematous variety. All appearances of the disease disappeared after he had been one month on mercuriol, his maximum dose being three grains three times a day.

Case 7 had been taking one-quarter of a grain of mercuriol and fifteen grains of potassium iodide, with the result that the eruption had decidedly improved, though not to the extent that it should have done. There were thickened red patches on the face, covered with scaly eruptions. The symptoms almost entirely disappeared within three weeks under a maximum dosage of five grains of mercuriol three times a day and fifteen grains of potassium iodide.

Case 8 had been treated with inunctions of mercury, under

which the eruptions disappeared, but the pains in the bones still persisted. He was relieved in three weeks under a maximum dosage of four grains of mercuriol three times a day.

Case 9 had been taking other forms of mercury for six months. The form which had done him most good was bichloride. Yet one-fifth of a grain did not entirely control the disease. He had been taking that for two months when he was placed on mercuriol. The dosage in his case was pushed up to six grains three times a day, and at the end of seven weeks all his symptoms had disappeared.

Case 10 had been taking medicine off and on for two years, but his symptoms never disappeared entirely. After being two weeks on mercuriol (two grains three times a day) with the addition of potassium iodide, all symptoms had disappeared.

Ayres, in conclusion, states that he uses mercuriol in his private practice to the exclusion of all other drugs. His experience is that he gets better results. He has found no form in which mercury can be given with such good results as in that of mercuriol.

Women in Medicine.

Two important historical works have recently been published in Paris on this subject, one by Melanie Lipinska, and the other by Marcel Baudouin. The latter was undertaken in honor of the semi-centennial of the admission of Elizabeth Blackwell to the medical profession, January 23rd, 1849. Woman's progress during the last decade has been remarkable. In Russia there has long been complete equality between men and women physicians, and women have recently won their cause in Hungary, Austria and Germany, and the prejudices against the admission of women to the medical profession are rapidly subsiding even in France. Spain still refuses to recognize medical women, although two and three centuries ago several Spanish women acquired some fame by their practice of medicine. Women physicians are now recognized in Belgium since 1890, in Italy since 1878, in Portugal since 1886, in Mexico since 1887, in Sweden since 1870, in Switzerland, Roumania, Bulgaria, in this country and Australia. Baudouin relates the history of Henrietta Faber, who practiced medicine in Havana for years, disguised as a man. She married in 1820 and was at once prosecuted and condemned to ten years of imprisonment. Medical women were numerous in ancient Greece and Rome and in Italy during the Middle Ages.—*Journal American Medical Association.*

REPORT OF PHYSICIAN-IN-CHARGE MUSKOKA COTTAGE SANATORIUM.

SIR,—I have the honor to submit herewith the Medical Report of the Muskoka Cottage Sanatorium for the year ending September 30th, 1901.

I am pleased to be able to state that we have had another year of progress, and the results have continued to be most satisfactory.

During the summers of 1898 and 1899 our accommodation of 50 beds was augmented by the use of tents. Owing to the increased number of applications this summer, extra accommodation had again to be provided. In the autumn of 1898, patients remained in the tents until the second week in November, and last winter until February. We have found, however, that the heavy snowfalls of winter seriously impair the canvas roof, and that in wet weather it is difficult to keep the bedding and clothing from becoming damp. This difficulty has been overcome by the erection of similar shelters with shingled roof, board floor and canvas sides; these we find very comfortable for the patients, and we hope to use them throughout the winter. Three have been erected as an experiment, each accommodating two patients. One of the tents used last year has been brought into requisition, and two of the smaller sitting-rooms in the main building have been temporarily fitted up for bedrooms. The permanent accommodation for 50 has been thus increased during the summer to 60 beds. The year ended with 61 patients in residence, the greatest number we have yet reached. As a result, our dining-room capacity is taxed to its utmost.

A new consulting room has been fitted up, and the room previously used fully equipped as a throat room and inhalation room. A new compressed air apparatus has been installed, and is found to be most satisfactory. The power is supplied by a water motor.

The interiors of the Wm. Davies and the Jessie Maver Cottages have been thoroughly renovated, and the walls tinted with oil paints, that they may be washed as occasion requires. The Jessie Maver Cottage also has been painted outside.

A much-needed addition to the Administration Building—a wing for the female help—is now under way. When this is completed we will have at our disposal a number of additional patients' rooms, which for some time have had to be used for the servants.

Generous friends have made several valuable additions to the Library during the year. These gifts have been much appreciated. We hope further additions will be made in the future.

Amongst our most pressing needs we would like to emphasize the following :

1. An infirmary for those acutely ill.
2. A reception home or hospital for those more advanced cases for whom there is some prospect of improvement, but who require supervision until they can be admitted to the Sanatorium, or who need a term of probation or observation before they can be finally accepted for admission.
3. Further accommodation for the resident staff. There is no sitting-room for assistant physician, nurses or matron.
4. An extension to the dining-room. If this be done, the accommodation required for the staff can be provided in the second storey.

As you will see from the tabulated report below, of 99 cases treated, 15 have been discharged apparently cured, and 29 with the disease arrested—that is, in 15 there is a return to perfect health, while in 29 others there is a relative cure—the general health is quite normal, and there are no subjective symptoms other than perhaps an occasional cough or slight expectoration. Of the 29, 14 gave promise of cure had their finances permitted them to remain, which would mean that 29 out of 99, or almost 30 per cent., could have been apparently cured had a longer stay been possible. The fact that in 44 out of 99 patients the disease has undergone more or less complete subsidence is highly satisfactory, considering the class of cases treated.

It is gratifying to note that the average gain in weight has been 13 lbs., and that there has been an average gain of 14½ lbs. in those remaining over three months.

It is difficult to arouse people to the necessity of sending cases early to secure the best results, notwithstanding the fact that we have shown in previous years, that of incipient cases 65 per cent. or over are cured, while of the more advanced cases we may look for permanent results in only a very small percentage, and for these results a very prolonged stay is necessary.

These 99 cases were classified on admission : Incipient, 24 ; Advanced, 43 ; Far Advanced, 32. Such a proportion of advanced and far advanced cases is not compatible with the best results. With our past results becoming more known throughout our Province and Dominion, our people are beginning to realize that consumption can be cured, and we are in receipt of a constantly increasing number of applications. We hope during the coming year to restrict our admissions still more to the class of cases for which the Sanatorium was established.

An erroneous idea prevails to some extent amongst the physicians of the Province, that a rejection of a patient means incurability. This is not the case. It is our endeavor to select

from amongst the applicants those who give greatest promise of improvement, more especially to select those for whom the shortest time seems necessary, so that our beds may be occupied by as many patients as possible in succession. With this object in view, our standard of admission must necessarily vary somewhat from time to time, depending upon the number and physical condition of applications.

I would urge that in every possible way we make an earnest plea to the medical profession to use the greatest care in the selection of patients sent for examination. In our endeavor to make our Sanatorium a place where people can recover, we cannot admit hopeless cases, and it is a constant source of surprise to our examining physicians, and to us here, that men and women are sent by their physicians as hopeful cases, when their symptoms and physical signs show them to be in an advanced condition. The refusal of these cases is one of the most unpleasant parts of our work, and the consequent disappointment, to say nothing of the needless fatigue and expense to patients coming from a distance, is often almost heart-breaking.

We have had during the year 15 visits from the members of the visiting staff. I take this opportunity to thank them for their unfailing kindness, and for their help and advice in the treatment of our patients.

Dr. J. D. Thorburn has been added to the staff of visiting laryngologists. It is now arranged that each physician visit us once in three months, so that one of the laryngologists will visit the Sanatorium each month.

In conclusion, I wish to express my thanks to the members of the resident staff for their faithful devotion to the interests of the Sanatorium, and to your Board for their kind counsel and ready acquiescence in all suggestions made for the comfort of the patients and the welfare of the institution.

Respectfully submitted,

J. H. ELLIOTT, M.B.,

Physician-in-Charge.

MEDICAL REPORT.

For the year ending September 30th, 1901.

	Male.	Female.	Total.
Number of patients in Sanatorium, October 1, 1900.....	19	28	47
" " admitted during the year.....	80	59	139
Total number during the year.....	99	87	186
Received from City of Toronto.....	29	24	53
" " other parts of Ontario.....	61	56	117
" " " Provinces of Canada	4	4	8
" " United States.....	5	3	8
Total.....	99	87	186

RELIGIOUS DENOMINATION OF PATIENTS.

Methodist..... 63	Anglican..... 39	Roman Catholic..... 14
Presbyterian..... 55	Baptist..... 7	Other Churches..... 8

SITE OF PULMONARY LESION.

Right Lung only Affected—upper lobe only.....	18	
lower lobe only.....	1	
upper and middle lobes.....	7	
upper and lower lobes.....	8	
upper, middle and lower lobes.....	6	
		49
Left Lung only Affected—upper lobe only.....	5	
lower lobe only.....	0	
upper and lower lobes.....	16	
		21

INVOLVEMENT OF BOTH LUNGS.	Right Upper Lobe.	Right Lower Lobe.	Right Upper and Middle.	Right Upper and Lower.	Right Upper, Middle and Lower.	Total.
Left upper lobe.....	14	0	2	8	4	28
Left lower lobe.....	3	0	1	1	2	7
Left upper and lower lobes.....	21	2	1	5	0	29
	38	2	4	14	6	64

DEFINITIONS OF TERMS EMPLOYED.

Incipient.—Cases in which both the physical and rational signs point to but slight local and constitutional involvement.

Advanced.—Cases in which the localized disease-process is either extensive or in an advanced stage, or where with a comparatively slight amount of pulmonary involvement the rational signs point to grave constitutional impairment, or to some complication.

Far Advanced. Cases in which both the rational and physical signs warrant the term.

Apparently Cured.—Cases in which the rational signs of phthisis and bacilli in the expectoration have been absent for at least three months or who have no expectoration at all; any abnormal physical signs remaining being interpreted as indicative of a healed lesion.

Disease Arrested.—Cases in which cough, expectoration and bacilli are still present, but in which all constitutional disturbance has disappeared for some time, the physical signs being interpreted as indicative of a retrogressive or arrested progress.

Improved.—Cases in which there has been some marked gain in the condition of the lungs, or in which there has been marked amelioration of the constitutional disturbances. Cases with simply a slight gain in weight are not placed under this term.

J. H. ELLIOTT, M.B.,
Physician-in-Charge.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLIMSTED.

Permeability of the Intestinal Wall with Respect to Bacteria.

Posner and Lewin have observed that after mechanical occlusion of the end of the intestine, there occurs, in from twenty-four to forty-eight hours, an invasion of the blood and of the organs by bacterium coli. Markus claimed that the lesions of the lymphatics due to the occlusion of the intestine were the cause of this invasion and that the bacteria passed through these little openings and not through the intestinal wall. By new experiments Posner and Cohn have confirmed the possibility of the passage of the bacteria through the intestine in consequence of this simple mechanical occlusion. This is proven both for the bacterium coli and for the bacterium prodigiosum. The differences in the results depend perhaps on the fact that Markus did not let his animals live long enough. In a single case of pyocyanic infection, the passage of the bacteria was noted in a few minutes after the occlusion.

The permeability of the intestine is always a pathological fact due either to mechanical causes or to the presence of pathogenic bacteria. The occlusion produces congestive disturbances which diminish the vitality of the intestine, but does not produce solutions of continuity.—Translated from *Berl. Klin. Woch.* by HARLEY SMITH.

Therapy in Cardiac Diseases.

If in the physiology and the pathology of cardiac diseases something new has been studied and recently affirmed, the attempts at innovation in the therapeutic field have been almost fruitless and the greatest cardiac remedies, digitalis and caffeine, have shown more and more their superiority over other drugs.

Rummo has studied well the heart remedies. He divides them into drugs which act almost exclusively on the muscular element (strophanthus, hellebore); drugs which act almost exclusively on the nerve element (sparteine, caffeine); drugs which act specially on the muscular fibre (digitalis, oleander, upas antiar); and drugs which act specially on the nerves (convallaria).

Benas Lewy has recently been investigating the value of digitalis in aortic insufficiency. From his researches it appears that in this disease (conformably with Cornou's views), digitalis prolongs the diastole, allowing a greater quantity of blood to gather in the left ventricle to the detriment of the arteries, favoring the disease. On the other hand, it strengthens the systole, for which purpose it is well to combine it with atropine.

In all the other valvular troubles and in diseases of the heart muscle, in the stage of failure of compensation, digitalis occupies the first place among the drugs; on this point all authorities are in accord. There is some difference of opinion as to the mode of administration and the dosage. Tincture of strophanthus, like digitalis, stands in the front rank among heart remedies. It cannot, however, always take the place of digitalis, but often is of great help when the use of the latter has to be suspended. Caffein, in the daily dose of $\frac{1}{2}$ gramme, acts as a diuretic and may be advantageously combined with digitalis. Besides stimulating the cardiac fibre, it acts on the vaso-motor centres and directly upon the secreting elements of the kidneys. Convallaria, odonis vernalis and other preparations, though frequently recommended, do not deserve a place among cardiac remedies. Diuretin may sometimes be combined with digitalis. Recently Stokes has suggested the addition of calomel and powdered opium in cases where intestinal troubles appear. So much for drugs.

As for the hygienic treatment in insufficiency of the cardiac muscle, we must insist on rest, so much recommended by Rosenbach, so as to spare the tired organ as much as possible. We often see patients, at the beginning of cardiac insufficiency keep their beds for several days and without the aid of any drugs obtain the return of relative comfort and of the cardiac equilibrium. This observation has been forgotten by Oertel and his followers when they laud his new cure, consisting of mountain climbing and gymnastics and carbonic acid baths. In mild cases and at the beginning of cardiac insufficiency, it is true that carbonic acid baths may give relief, diminishing the peripheral circulatory resistance, stimulating the cutaneous nerves and accordingly lessening the work of the cardiac muscle. But when the insufficiency is relatively advanced, and degenerative features show themselves, then (as Leyden, Litten and Gibbon have observed) gymnastics and mountain climbing and other methods of mechanical treatment are not only useless but hurtful, in that they favor the wearing out of the heart muscle. Radioscopy has confirmed the opinions of those who oppose the mechanical treatment. The cases which have received benefit from such treatment have been cases of cardiac

neurasthenia, of mild arrhythmia or nervous arrhythmia, as the school of Engelmann call them.

We may therefore affirm as a general rule that in heart troubles, whether chronic or arising as a sequel of infectious diseases, digitalis, rest, and in mild cases carbonic baths, constitute the only efficient treatment.

When the heart fibre is by these means strengthened, if the signs of want of compensation no longer appear, then it is time to have recourse to mechanical treatment, Oerker's climbing and Schott's gymnastics.

In concluding, we must refer to the prophylaxis of myocarditis and the serum-therapy of endocarditis.

As for the former, we need only say that as myocarditis generally follows acute articular traumatism, we must, besides treating rigorously such disease, also avoid the relapses by administering in the intervals of the disease, daily, sodium salicylate, and adopting all the hygienic treatments included in Naunheim's gymnastics.

As for the serum-therapy of endocarditis, we wish to say that Douglas Powell in twelve cases has tried injections of anti-streptococcic serum, obtaining three cures, two improvements and seven deaths (25 per cent. cures). In all these cases he made a bacteriological examination of the blood and having discovered either streptococci or staphylococci, he used the corresponding serum, the fever disappearing in from eight to fourteen days after the first injection.

This method of treatment needs many more trials, but it gives much reason for hopefulness. As far as the dose of serum is concerned and the number of injections, Powell remarks that that depends on the individual reaction and on the quality of the serum.—Translated from *Giornale Internazionale delle Scienze Mediche* by HARLEY SMITH.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF G. STERLING RYERSON, J. T. DUNCAN AND J. O. ORR.

The Use of the Ophthalmoscope in Nephritis.

Edward Jackson (*New York Medical Journal*) says: In cases of renal disease the ophthalmoscopic examination follows closely in importance the clinical and microscopical examinations of the urine. Noticeable changes are found in fifty per cent. of such cases; and distinct albuminuric retinitis occurs in not less than ten per cent. In these latter cases the ophthalmoscopic appearances are easily recognized, are as pathognomonic of the general disease as any set of symptoms

known in medicine, and have the most definite prognostic significance. Of the men showing albuminuric retinitis in Haale's clinic, all died within two years.

To look for it thoroughly requires the use of a mydriatic. Atropeni, however, should not be used, as it takes two weeks for the pupil to resume its normal condition after its use. A brief mydriatic, such as cocaine, four per cent., or homatropine, one-fifth of one per cent., should be instilled forty or fifty minutes before the examination is to be commenced.

What to look for.—The most constant ophthalmoscopic symptom is alteration of the retinal veins, which are dilated and tortuous, especially those about the macula. Next, hemorrhages may be found anywhere in the retina, they may even extend into the vitreous. There is swelling and opacity of the retina in spots, or around the optic nerve. The color of the patches may vary from a dirty-red to a snow-white, or a gray-blue. White spots arise from fatty degeneration. These are most characteristic when arranged in rows, radiating from the centre of the macula. The optic nerve may be reddened and opaque, or swollen so much as to resemble choked disc.

Strabismus.

In a valuable paper on Strabismus, J. Morrison Ray (*Journal of Medical Association*) (American) studies 100 cases. 76 of these were monolateral squint, in all of which the squinting eye was defective in visual acuteness; 24 were cases of alternating squint, in which the visual acuteness was practically the same in each eye. Of the 76 cases, in 21 of them improvement in the acuteness of vision in the defective eye by the use of proper glasses, was observed.

The following conclusions are the summing up of the paper:

1. The effect gained in the treatment of squint, whether by a cycloplegic or glasses, or operation, is largely, or we might say wholly, cosmetic.

2. Glasses should be adjusted to the eyes of squinting children at as early an age as possible

3. Binocular single vision is not present in more than seven per cent. of cases of squint.

4. Cosmetic results can be obtained and maintained where the fusion power is absent

5. In alternating squint, if the hypermetropia is of high degree, the chances for producing parallelism are better than when the hypermetropia is low.

6. The effect of a tenotomy is greatly influenced by the amount of abducting power present in the corresponding externus. This should always be specially noted in the alternating variety.

7. Two tenotomies on the same internus is bad surgery, since it invariably leaves a sunken caruncle, and later, divergence.

Cycloplegics in the Estimation of Refraction.

Chacon (*Gaceta Medica de Mexico*), in a paper read before the Mexican Academy of Medicine, demonstrates that in estimating the refraction of Mexican people, he has found it necessary to resort very frequently to the use of cycloplegics. Chavez agrees with him, and instances several cases in which an artificial myopia had been overcome and the true refraction—hypermetropia—determined only after the use of a cycloplegic. This simply points to the fact that the only safe method to adopt in almost all cases is the use of some cycloplegic. J.T.D.

Myopia or Shortsightedness.

This may be said to be of two kinds:

1. It is an innocent condition in many persons, continuing through many years without much change, and not leading to disaster of any kind.

2. In others, myopia is a progressive or pernicious condition which reaches a higher and higher degree as time goes on, is accompanied by damage to the tunics of the eye, and leads sooner or later to serious impairment or loss of sight.

An interesting discussion took place on this latter condition at the late meeting of the British Medical Association (*British Med. Jour.*, October 19th).

Mr. Priestley Smith first remarked that these two classes are not always sharply distinguished from each other, there being many cases of myopia which cannot be placed at once in either class. This is where the difficulty of diagnosis and prognosis comes in. In attempting to forecast a case Mr. Smith considers the following data:

1. The age of the patient.
2. The grade of the myopia.
3. The condition of the choroid and retina.
4. The constitutional condition.
5. The evidence relating to heredity.
6. The occupation of the patient.

1. Under this heading the remark is made, "the younger the patient, the more likely is the myopia to increase in degree." Age alone, however, justifies no inference.

2. Other things being equal, the higher the myopia the more likely is it to increase. A high myopia in a child is of very evil augury. But in adults we can form no forecast, even from the grade of myopia and the age taken together, unless we take into account the next paragraph, No. 3.

3. The changes which occur in the choroid and the retina are, in the order of their occurrence: first, the typical myopic crescent; second, the patchy themicrig of the choroid in the adjacent region; third, pigmentary and hemorrhagic changes in the retina, and, in some cases, detachment of the retina. The presence of any of these changes adds to the gravity of the prognosis.

4. Under this section Nettleship is quoted as saying of myopia, "General enfeeblement of health . . . seriously increases the risk of its progress."

5. The tendency to myopia is very frequently hereditary, although some observers hold that inherited myopia is commonly an innocent disorder. Heredity, however, confers no immunity from pernicious complications.

6. Occupation. The future of many myopic eyes depends on the way in which they are used. Prolonged and habitual close work does harm. Patients who must, or will, continue such work in excess, are encouraging their myopic to run a pernicious course. The amount of risk must be estimated from paragraphs 1, 2 and 3, viz., the age, the amount of myopic, and the fundus changes. To give a bad prognosis by way of warning is sometimes the best way to prevent its fulfilment.

Mr. Henry Power, in discussing Mr. Smith's paper, remarked that in the case of a myopic child he was very particular that he should be seated near a window, where good light would fall upon his book. Second, he tries to prevent the child holding his head too near the book; third, the diet must be full and sufficient.

Mr. Henry Eales advises, where the power of accommodation is good, full correction of the myopia by glasses for all purposes, even in the higher degrees.

Mr. E. D. Bower considered that reading with an insufficient light was a most important factor in developing myopia, and also that, in moderate or high degrees of myopia, to read without glasses led to its increase.

Mr. T. Thompson believed that it was of the utmost importance to correct myopia by glasses as early and as fully as possible, in order to encourage the holding of the books at a proper distance.

Foreign Body in the Eye for Eighteen Years.

Alvin A. Hubbell (*Ophthalmic Record*) reports a case in which a foreign body was lodged within the eyeball for eighteen years, and then successfully removed. The case altogether is a remarkable one. The piece of cast iron was lodged in the lens, iris and cornea. The lens had become absorbed, and there had been occasional attacks of inflammation and

"corneal ulceration" in the eye. Nevertheless, the author considers that there is a possibility of serviceable vision in the eye. And in the other eye three distinct attacks of sympathetic inflammation had occurred, each of which had passed away without impairing the vision of that eye.

J. T. D

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

Epileptiform Convulsions Caused by Shoe-button in the Nose.

J. S. Steele (*Laryngoscope*, October, 1901). A boy aged 6½ years had for two years been suffering from nasal catarrh and epileptic convulsions. Although fat and well nourished, he was reported to have grown stupid during the past two years. He had for the whole of that time been subject to daily convulsions, often having six or eight in a day. There was also a large sore spot on the back of his head, caused by falling backwards at the onset of the convulsions.

On examination of nose a button was found in the left nasal passage, between the middle turbinated and septum. It was covered by a hard crust, and after the removal of the latter, was extracted. Cleansing treatment of the nose, together with electro-cautery operation upon the hypertrophied tissues, was followed by rapid improvement in every way. In the course of a few weeks the catarrh, as well as the convulsions, disappeared, and the child regained his accustomed brightness.

Report of two cases of Serous Disease of Maxillary Sinus.

W. E. Casselberry (*Jour. of Laryn. Rhin. and Otol.*, September, 1901). Case 1 occurred in a man three months after the removal of nasal polypi. It followed an acute influenza. Transillumination gave diminished clearness of the left side. Aspiration yielded a syringe-ful of clear straw-colored mucoserous fluid, which partially coagulated on standing. The microscope revealed epithelial and lymph cells. Later on, suppuration developed, necessitating the opening of the anterior wall, curettment and washing. Complete recovery.

Case 2. A woman, aged 62 years, had bilateral nasal polypi with consequent mouth breathing. Both middle turbinates greatly enlarged and in a state of polypoid transformation. Transillumination showed infra-orbital crescent on each side diminished. Aspiration of left maxillary sinus yielded syringe-ful of viscid transparent fluid. The left middle turbinated was then excised. Subsequent aspiration and irrigation on same side was entirely negative, indicating cure.

On the right side, during a period of four weeks, five successive punctures into the antrum were made, each yielding similar transparent fluid to that obtained from left side. But the middle turbinated, not having been resected, the accumulation of serum continued to be repeated. A resection was then made of the degenerated right middle turbinated body, with a large polypoid mass and polypoids. Reaccumulation of fluid at once ceased; and examination of both antra three weeks later proved that they were both cured.

The writer concludes that transillumination is indecisive, and that the diagnosis must be based on aspiration. Also, that in treatment it is essential to remove the obstruction of the ostium maxillare; and to attain this end enlarged middle turbinated bodies should be resected and polypi removed.

Tonsillotomy Rash.

Wyatt Wingrave (*Jour. Laryn. Rhin. and Otol.*, October, 1901) says that while "surgical rash" is familiar to all, its association with the removal of tonsils and adenoids is not so widely known. When occurring, the eruption generally appears on the second or third day. It may be either papular, roseolous or erythematous in type, and attacks the neck, chest or abdomen, sometimes the face. It lasts for two or three days, occasionally for four or five. Then it gradually disappears without desquamation. Sometimes it is associated with intense itching; but the constitutional disturbances are usually very slight.

Hemorrhage after Tonsillotomy.

Seifert (*Wiener Klinische Rundschau*, November 15th, 1901) points out some of the dangers following tonsillotomy. He quotes Lichtwitz, who found Löffler's bacillus in 40 per cent. of his cases. Sometimes alone, or in conjunction with staphylococci, streptococci, leptothrix, etc., in the wound surface. The writer holds that tonsillotomy should not be performed in a general hospital, or during epidemics of scarlet fever or diphtheria.

When hemorrhage occurs it is usually soon after operation, rarely secondary. Moure reports one that occurred one week after operation. The abstractor reported two cases several years ago, one in a boy of 5 years, the other in a man of 20 years, each occurring on the fifth day.

The causes to which hemorrhage are due are given as the following: Injury to the tonsillar artery, atheromatous changes in the vessels, hemophilia, injury to the internal carotid if the latter pursues an abnormal course. When the above conditions are suspected, Seifert advises the use of the galvano-cautery

snare, and suggests that only three quarters of the tonsil should be removed. Complete rest, sucking ice and gentle gargling are recommended after operation.

Case of Epithelioma, Involving Tonsil, Faucial Pillar and Tongue, Treatment and Apparent Cure.

S. H. Oren (*Jour. Amer. Med. Assoc.*, August, 1901). The growth was microscopically diagnosed as epithelioma. Hypodermic injections of pure alcohol were made in several places outside the periphery of the ulcer, and in and above the anterior faucial pillar. Inflammatory reaction resulted, leaving a hard, circumscribed mass. This indurated area was then dissected out, and the base curetted and cauterized. One year later there had been no return of the disease.

Case of Primary Epithelioma of the Uvula.

Appenheimer (*Medical Record*, August, 1901) reports the case as occurring in a man aged 81 years. It commenced in the tip of the uvula, rapidly involving the whole of the organ. It grew as large as a walnut. It was bluish red, not ulcerated, and firm to the touch. The cervical glands were slightly enlarged but not tender. Slight pain was complained of, radiating to the ears. A small piece removed and examined microscopically presented the characteristics of epithelioma. Operation was considered inadvisable.

The Treatment of Laryngeal Papillomata in Children.

Hunter Mackenzie (*Jour. of Laryn. Rhin. and Otol.*, September, 1901) enters fully into the surgical treatment of this disease; and from his wide experience weighs the various methods in a judicial balance. Speaking of thyrotomy he says a more unsatisfactory method of treatment for laryngeal papillomata in children could scarcely be devised. The risks of the operation are: permanent alteration and injury to the voice, chronic stenosis, and possible death as a result. Besides these, and perhaps more important, is the fact that the operation of thyrotomy with removal or destruction of the papillomata, is almost invariably followed by recurrence of the growths. As examples he quotes the following: Lenden operated seventeen times within two years on one child. Eventually stenosis resulted, necessitating the permanent insertion of a tracheotomy tube. Abbé operated four times on one child, and eventually had to resort to tracheotomy. Permewan reported the case of a boy of 11 years, on whom he performed thyrotomy twice, removing the growths and cauterizing the basis. They again recurred, and before they were considered

dangerous enough to require another operation, the boy was found dead in his bed. Downie reports a two year old child upon whom thyrotomy was performed six times in one year.

Of endo-laryngeal operations for young children suffering from papillomata, Mackenzie speaks almost as scathingly, although he acknowledges that the immediate and remote risks are not quite so great as when thyrotomy is performed. The most serious objection is the difficulty of performing intralaryngeal operations at so early an age; and the impossibility of doing them in a radical manner. Almost invariably operation is followed by recurrence.

One man is reported as having gone through 220 intralaryngeal operations for the removal of papillomata between the ages of 7 and 30 years. Finally he invested in the necessary instruments and learned to perform the operation himself. Mark Howell operated fourteen times intralaryngeally, under chloroform, upon a boy aged $3\frac{1}{2}$ years before he could pronounce the larynx clear of the growths; and Bond operated nearly fifty times upon a girl between the ages of 10 and 18 years.

Tracheotomy, and the prolonged wearing of the tube, the writer believes to be the ideal way of combatting this disease. The larynx is left severely alone, and the tube is kept *in situ* for periods varying from six to fifteen months. Seven of his own cases are reported. Of these four completely recovered, and the others were all benefited. Reference is also made to the reports of other writers, who, from personal experience, speak very favorably of the method of treatment.

After operation the cough is diminished. Complete rest is given to the larynx, both phonatory and respiratory, and by avoiding irritation nature works a spontaneous cure.

Traumatic Dislocation of left Arycartilage.

Henry L. Wagner, of San Francisco, (*Laryngoscope*, August, 1901) gives the history of a case of this unusual accident. He believes that it is the second on record. It occurred in a man 72 years old, and was caused by a blow, which produced unconsciousness. On recovery he was voiceless. Breathing was difficult, and there was intense pain. After subsidence of swelling, some days later, the left arycartilage was seen to be dislocated in front of its normal position, and fixed between the respiration and phonation position. Massage treatment was tried for some weeks and attended by slight improvement. At this stage the patient ceased his visits, and the further result is unknown.

Foreign Body Lodged for Four Months in the Trachea of a Thirteen Months old Child.

H. F. Brownlee (*Med. Record*, July, 1901) gives the history of the case. The child at first was supposed to be suffering from croup. At last dyspnea became marked and tracheotomy was performed under chloroform anesthesia. The foreign body proved to be a thin flake of coal, the size being $\frac{1}{4} \times \frac{1}{2}$ inch. Inflammation at the point of obstruction had caused the increased stenosis. Rapid recovery followed the removal of the foreign body.

Vaccination by Osteopaths Not Recognized.

The School Board at Ashley, Pa., has refused to accept certificates of vaccination performed by osteopaths. Several hundred children are affected by this, and before they can get into school will be required to have a second operation in order to get a certificate from a registered physician.—*New York Medical Journal*.

Treatment of Leukemia.

La Médecine Moderne, September 4, 1901, recommends the administration of Fowler's solution in the following manner in leukemia: Three drops are given three times a day before meals, and this dose increased a drop with each day. When 10 drops are being taken, a drop of laudanum is added to each dose; when 15 drops are being taken, 2 drops of laudanum are added. Every two or three days a teaspoonful of Carlsbad salt is given before breakfast. By the addition of laudanum and the laxative salt, toxic effects are avoided. If toxic symptoms should appear, however, the dose of arsenic is gradually decreased. In place of 45 drops of Fowler's solution as the maximum, this amount is reduced to 40 drops the first day, 35 drops the second, 30 the third, and so on, progressively lowering the dose by 5 drops each day until 20 drops are being taken, this representing the minimum dose. This amount is given for several days until the toxic symptoms disappear, when it is again increased. This treatment is continued for many months without interruption. The avoidance of wine and the use of milk as a beverage favors tolerance of the drug. As a result of this treatment, it is stated, the appetite improves, strength returns, the ganglionic enlargements in the groin and axillas disappear, the spleen decreases in size, the number of white blood corpuscles diminishes, and the red corpuscles assume their normal appearance. Complete return to health is said to have been observed.—*American Medicine*.

Editorials.

CONTRACT PRACTICE.

We consider that contract practice, as we now understand it, is the greatest curse which has fallen on our profession in modern times. We think it is no disgrace, but simply a misfortune, when any physician enters upon such work. Take Toronto for instance. Such men as the late Drs. George Wright, Laughlin McFarlane and John E. Kennedy had a certain amount of contract practice in their earlier years of professional work. Many others still living, of undoubted respectability in every respect, were at one time, or are now, engaged in such work. The evils connected with this sort of practice are fully recognized in all parts of this country, but the remedy for the same appears to be hard to find.

Bad as things are in this respect in Canada, it seems that they are infinitely worse in Great Britain. It is a revelation to many of us to study this question in the *British Medical Journal* of November 2. In that issue we find an original communication and a leading editorial on the subject. From both we infer that, while there is much that is objectionable in connection with contract practice, it must be considered a necessary evil, and physicians must try to obtain the best possible terms.

Dr. Larking, of Folkestone, the writer of the communication before referred to, gives his personal experience as follows: "I practised for nine years in a country town and district of about 9,000 inhabitants. I commenced *de novo*, and at first had no patients at all. Then one came and then another (mostly people who owed money to other doctors in the place). I think I took in cash about 15s. in two months. Then, in an evil hour, I was led astray and seduced into taking clubs. I was so sick of doing nothing and so impatient to make a practice, that I prostituted my professional knowledge, and agreed to attend for a yearly fee of 4s. each. Having once consented to take clubs, it was a case of *facilis descensus avari*, and at the end of a few years I had a large club practice as well as a private one. I had plenty of work, night as well as day, and yet

pecuniarily I got no forwarder. I found I had enough work for two men and earned only enough to keep one."

One physician in the West of England who received 5s. per head a year earned $7\frac{1}{2}d.$ per attendance, and for this he had also to supply medicines, surgical dressings, spirits, etc. According to the editorial in the *British Medical Journal* a contract practice at 4s. a head per annum works out about 6d. for each attendance. Of course at 2s. 6d. per head the income becomes proportionately less. We can quite understand the truth of the following: "The man who has a large contract practice cannot earn an adequate income without doing an amount of routine work which makes it impossible for him to do his duty by his patients, or to add to the stock of medical knowledge." What kind of medicines do these two-and-sixpenny men give? Mr. Labouchere tells us that "the two great remedies in the hands of our profession are Faith and Purgation." Dr. Larking, in commenting, says: "With an urbane and confident manner, many club patients are conquered and their faith strengthened—the Epsom salts do the rest."

GIFTS TO EDUCATION IN THE UNITED STATES.

Two remarkable gifts were made in December in the United States. One was Mrs. Stanford's gift of \$30,000,000 to the Leland Stanford University in California, probably the largest on record. According to the *Literary Digest*, the *New York Evening Post* says: This makes that university the richest institution of learning in the United States, and probably in the world. The other was Mr. Carnegie's gift of \$10,000,000 to a new institution which he wishes to found, to be called The University of the United States, to be located in Washington. It is not intended that this shall compete with any other existing institutions, as it is to be purely a post-graduate university for the pursuit of original investigation. It is probably not generally known that Washington has, as the *Boston Transcript* says, splendid educational resources, but they are not properly systematized. "To search for knowledge there is like trying to find pearls in a junkshop. With about \$8,000,000 annually available for the promotion of scientific research, there is evidently an uneconomical employment of the money,

It is not wasted. Doubtless the best use possible, under present conditions, is made of it. But the conditions are haphazard and clumsy." Ten millions is a large sum, and its judicious expenditure ought to do much towards introducing something like system in the Washington methods.

There seems to be a general consensus of feeling in the United States that a research university is needed above all other things from an educational point of view. Much research work has already been done. Johns Hopkins did a great deal in this direction for fifteen years, but diminished endowment through the failure of the Baltimore and Ohio railroad, and increasing demands of the undergraduate department, have greatly curtailed the resources for research. It is interesting to note in connection with this subject, as pointed out by the *Chicago Tribune*, that during the year 1901 one hundred and forty-nine institutions of learning have received gifts amounting in the aggregate to \$81,415,220.

FIFTY YEARS OF MEDICINE.

A very interesting banquet was given in New York, in honor of Dr. T. Gaillard Thomas, on his seventieth birthday, November 21st, 1901. We find a great deal that is entertaining in his address on that evening, as published in the *New York Medical Journal*. He told his friends that as he looked backward down the dim vista of fifty years, he could see the disembarkation of a young physician of twenty-one from a coasting schooner from South Carolina, without one acquaintance in New York, and with a purse no more plethoric than which usually falls to the lot of the son of a clergyman of the Episcopal Church. The medical world of to-day recognizes that young physician—Dr. Thomas—as one of the greatest gynecological surgeons of this or any age.

He also referred to the science of medicine as founded by Hippocrates about 2,300 years ago, and said that during the last fifty years there had been done for the advancement and growth of medicine more than was done in the 2,250 years preceding. We quote his own words, as follows:

Think for a moment of the wonders which we have seen

effected in and for medicine in that time! We have seen the "cellular pathology" of that most eminent of living physicians, Rudolph Virchow, proved true beyond question and made the basis of a grand and imposing superstructure. We have seen pain annihilated by anesthesia, so that the human body could lend itself without sensation to the perfection of the surgeon's art; we have seen the vision of the physician so magnified in power as to penetrate the opaque walls of the body; and we have seen surgery, thus aided, lifted up from its lowly estate as a mechanic art and placed almost upon the level of an exact science. We have seen the primordial elements of disease, that bacterial host, invisible to the men of old, brought face to face with us by the miracle-working microscope; and by preventing their agency in the production of sepsis we have minimized the death-rate of surgical operations and almost stamped out puerperal fever. Working upon the same lines, we have succeeded in rendering impossible forever those appalling epidemics of the plague, yellow fever, and cholera—those pestilences which for our fathers "walked by darkness" in their gruesome work of decimating the nations of the earth. We have seen the entire field of gynecological surgery, the world over, revolutionized by the eminent labors of Marion Sims, our late associate; and we have seen practical medicine elevated and freed from previous doubt and uncertainty by the wonderful influence of clinical thermometry.

We have detected the true pathology of those obscure cases of so-called idiopathic peritonitis, which from the very dawn of time until our day have filled year by year, throughout the world, not thousands, but millions of graves, and we have experienced an honest pride in seeing a surgical remedy for appendicitis, their true cause, placed upon an enduring basis by McBurney, a son of New York.

TORONTO GRADUATE NURSES' REGISTRY.

The attention of the profession is drawn to the advertisement of the Toronto Graduate Nurses' Registry.

In times past efforts have been made to establish such a Register, but not until the present has a practical method been

proposed. We are satisfied that at last we have a Nurses' Registry upon a firm working basis, which will meet with the support of both nurses and physicians. The support of the graduate nurses in this city is assured already and this cannot fail to command the support of the medical profession.

The names and addresses of all members are carefully entered upon the Register, and any special nurse may be had on application if she is disengaged. If engaged, there is a long list of nurses, all well trained and competent, from which a good one may be obtained.

Unanimity on the part of the nurses is now most essential. If they will but unite with the common object of making the Registry a success, they will benefit very materially by it in many ways. Recent graduates will secure an introduction to private nursing, and the older nurses will be able to conduct the business part of their work more systematically. The volume of work will be much increased both in the city and the country, but more especially in the latter. Is it too much to hope that at some time not far distant the several training schools may have a central examining and licensing body, which will place them all upon a common level and result in securing very superior work in their profession?

ALUMNI OF THE TORONTO GENERAL HOSPITAL have elected the following officers: Hon. President, Dr. J. T. Fotheringham; Hon. Vice-President, Dr. Goldie; President, Dr. F. A. Cleland; Vice-President, Dr. A. Chisholm; Secretary-Treasurer, Dr. J. H. Brent; Committee, Drs. O'Brien and Currie.

TETANUS FOLLOWING VACCINATION.—The recent fatalities from tetanus following vaccination at Camden, Atlantic City, Bristol, Brooklyn, Cleveland and St. John, N.B., have naturally caused a certain amount of alarm. We have been requested to state that in no instance did any such fatality follow the employment of vaccine virus furnished by Parke, Davis & Co., of Detroit, and Walkerville, Ontario, or by the Walford Co., of Philadelphia. We think we are justified in saying editorially that we thoroughly believe the statements of the representatives of the houses named. The subject is, however, of such vast importance in the interests of the profession and the public that we have asked a competent pathologist and bacteriologist to investigate the matter and prepare a careful and unbiased report, which we hope to publish in our next issue.

Obituary.

W. D. C. LAW, M.D.

Dr. Law, for many years a practitioner in Beeton, Ontario, a graduate of McGill of 1868, died at the General Hospital, Winnipeg, November 17th, aged 58 years.

DR. J. M'GUIRE.

Dr. J. McGuire died in Kansas City, November 2nd, aged 40. He was the son of a well-known resident of Trenton, Ontario. After graduating in medicine he left his native town and settled in Detroit. Six months ago he went to Kansas City. Death resulted from morphine poisoning.

DUNCAN M'LEOD, M.D.

Dr. Duncan McLeod, one of the best known physicians of Detroit, died December 29th, aged 53. Dr. McLeod was born in Cape Breton, but spent most of his boyhood days in Hamilton and neighborhood. He received his medical education in Trinity College, Toronto, graduating in 1873, and at once settled in Detroit, where he practiced up to the time of his last illness.

SIR WILLIAM M'CORMAC.

It is supposed by his friends that the death of Sir William MacCormac, December 4th, in his 66th year, was the result of fatigue and exposure in South Africa. After his return to England he suffered from dysenteric symptoms, with lumbar pain, abdominal pain, and abdominal tenderness. He went from London to Bath, December 2nd, with the hope that the more genial climate and the baths ought to benefit him. He had a bath and douche on the following day, feeling better for them. He slept better than usual on the following night, and awoke at 5.30 o'clock on the morning of December 4th, feeling comfortable and cheerful. At 7.30 a.m., he was sitting up taking his coffee, when suddenly, with an expression of pain, he put his hand to his heart, fell back on the pillow, and died almost immediately.

DR. HUGH M. BAIN.

Dr. Hugh M. Bain, of Calgary, N.W.T., at one time a resident of Prince Albert, died October 2nd, aged 49.

GEORGE T. ORTON, M.D., M.R.C.S., ENG.

Dr. Orton, of Winnipeg, died at his residence, November 14th, aged 64. He received his medical education in Great Britain, graduating M.D., St. Andrew's University, in 1860, and becoming a member of the Royal College of England in 1862. He practised for many years in Fergus, and for many years was prominent in politics, being well known as an ardent Conservative. He represented Centre Wellington in the Dominion Parliament for many years.

MR. WALTER S. LEE.

Through the untimely death of Mr. Walter S. Lee, January 4th, the Toronto General has lost its best friend. He became a trustee in 1877, and succeeded the late Judge Patterson as Chairman of the Board in 1889. After that date the Hospital had some dark days, especially during the depression following the boom. To Mr. Lee, who worked faithfully and persistently, although in his own quiet and unostentatious way, is due the chief credit for bringing the institution safely through those troublous times.

Personals.

Dr. A. P. Kelly (Trin. '98) is now practising in Orillia.

Dr. W. Harley Smith has been appointed Italian Consul for Toronto.

Dr. R. B. Nevitt, of Toronto, has removed from Jarvis Street to Bloor West.

Dr. W. A. Cerswell (Tor. '01) has gone to London, England, for post-graduate work.

Dr. A. H. Hough, of Wiarton, has been appointed an associate coroner for Bruce County.

Dr. Jennie Gray delivered an address at the Working Boys' Home, December 20th, on "Narcotics."

Dr. J. Orlando Orr was appointed Lecturer on Bacteriology for the Technical School of Toronto, December 19th.

Dr. E. Herbert Adams delivered an address on New Ontario before the Ross Liberal Club, in Toronto, December 19th.

Dr. C. D. Parfitt (Trin., '94) has been appointed to a position on the staff of the Gravenhurst Sanatorium for consumptives.

Dr. G. E. McCartney (Tor. '01) has been appointed House Surgeon to the New York City Hospital for a term of two years.

Dr. George S. Beek, of Port Arthur, is taking a well-earned holiday. He is now spending a portion of his vacation in Toronto.

Dr. J. C. Gilchrist, of Dumfries, Scotland, a recent graduate of Edinburgh University, spent New Year's Day with relatives in Toronto.

Professor J. G. Adami, of Montreal, read a paper on "Classification of Tumors" before the Toronto Pathological Society, January 4th.

Dr. George A. Sutherland (Tor. '98), of Embro, has recovered from his serious attack of typhoid fever, with perforation of the bowel, for which an abdominal section was performed.

Hon. Dr. Montague has returned to Canada after having spent nearly a year in Australia and New Zealand, where he was working in the interests of the Independent Order of Foresters.

Dr. W. H. Groves (Tor. '89) was recently appointed surgeon to the *Sekondi*, of the African Steamship Company, plying between Liverpool and the west coast of Africa. For some time previous he had been engaged at post-graduate work in Europe.

Correspondence.

POST-GRADUATE WORK IN TORONTO.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW :

SIR,—The importance of my proposition is beyond question that the requirements of the medical profession, of this great Province in particular, and in a wider sense of the Dominion west of Montreal, call for an efficient medical polyclinic at Toronto. The large urban and directly contributory neighboring population, and the urban hospitals and other public charities, afford the necessary clinical material for the purpose. The post-graduate courses being conducted in summer, after the close of the undergraduate courses in the medical colleges, there would be no interference between post-graduate and undergraduate interests and requirements. The capital city has other desirable advantages for a polyclinic centre, which being obvious, I will not here particularize.

In corroboration of the assertion in my recent correspondence, that no visible practical attempt has been made to furnish provision for polyclinic or post-graduate study in medicine at Toronto, I adduce the following evidence :

1. At the close of an article over his own signature in the July number of your periodical, Dr. Adam H. Wright, a leading professor in the Toronto Medical College, an unimpeachable authority, uses the following language : " We have been talking for some years about post-graduate courses. We have plenty of teaching ability and a fair amount of clinical material at our disposal. How would it do to stop talking and go to work ! " This remark is capable of but one meaning. Although they had for use satisfactory teaching ability and clinical material, Dr. Wright and his colleagues for years talked about post-graduate courses of instruction, but had actually done nothing. *Vox et præterea nihil.*

2. The entire absence of information in the published annual announcements of the Toronto Medical Colleges, concerning post-graduate courses in their curriculum, when and where to be given, and what features comprising. Such information, in fact, as would and should be afforded of actual *bona fide* post-graduate courses, and which appears in the annual announcements of medical institutions elsewhere, that provide genuine post-graduate courses of training.

3. Personal interviews with recent Toronto medical graduates,

who all testify their ignorance of any post-graduate medical courses in Toronto, and if there were any they would know the fact.

4. Members of the staff of the Toronto and St. Michael's hospitals have given me similar information.

5. Public notoriety.

My second item of evidence is supplied by the annual announcements for the last ten years, in my possession, of the Toronto Medical Colleges, and of various separate polyclinic medical institutions, and medical colleges, which give post-graduate courses, situated in the United States. The post-graduate attendance lists contain an immense number of Canadian medical practitioners and graduates, three-fourths of them from Ontario, attending post-graduate courses in those foreign institutions. The annual announcements of the Toronto Medical Colleges of course are entirely destitute of such lists. I have no means of knowing the number of Canadian medical men visiting Europe for post-graduate culture, but it must be considerable.

Had Toronto been a polyclinic medical centre of high repute, as it ought, far the major portion of this outflow of Canadian doctors old and young, to foreign post-graduate institutions, would have been an inflow to Toronto, augmented by large numbers desiring to take post-graduate courses, but unable to attend far distant foreign polyclinics. All the medical men I have met strongly endorse my views about the importance of making Toronto a leading polyclinic medical centre without delay.

LUCIUS S. OILLE.

St. Catharines, January 6th, 1902.

PARKE, DAVIS & COMPANY'S VACCINE VIRUS.

Editor Buffalo Medical Journal.

SIR,—We respectfully ask you to apprise your readers on the faith of our positive assurance, that not one of the recent tetanus fatalities following vaccination at Camden, Atlantic City, Bristol, Brooklyn, Cleveland and St. John, N.B., succeeded the employment of our vaccine virus. In not a single, solitary one of these cases was our vaccine used. We incriminate no one's vaccine, but we propose to assert the truth about our own. If we can prevent it, no physician or pharmacist shall labor under the false impression that a fatality has ever followed, either by coincidence or by cause and effect, the application of vaccine virus or serum bearing our name.

PARKE, DAVIS & CO.

Detroit, December 5th, 1901.

Book Reviews.

Modern Obstetrics: General and Operative. By W. A. NEWMAN DORLAND, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Associate in Gynecology, Philadelphia Polyclinic. Second edition, rewritten and greatly enlarged. Handsome octavo, 797 pages, with 201 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$4.00 net. Canadian agents: J. A. Carveth & Co., Toronto, Ont.

The first edition of this book was well received, especially in the United States. In the revised editions it has been very greatly enlarged, so that it now forms a large and complete textbook of obstetrics. A number of new sections have been added, including chapters on the surgical treatment of puerperal sepsis, and the role of the liver in the production of puerperal eclampsia. Especial attention is given to the more recent pathology of obstetric conditions, as well as to the physiology and hygiene of pregnancy and labor; a more accurate elaboration of the mechanism of labor has been adopted. By new illustrations the text has been elucidated, and the science of modern obstetrics is presented in an instructive and eminently acceptable form. The book is especially well suited for the needs of students and young practitioners.

A Text Book of Obstetrics. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. Third edition, thoroughly revised and enlarged. Royal octavo, 873 pages, with 704 illustrations, many of them in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$5.00 net. Canadian agents: J. A. Carveth & Co., Toronto, Ont.

In this edition the book has been thoroughly revised. New matter has been added to almost every chapter, notably those treating of diagnosis of pregnancy, the pathology of pregnancy, the pathology of labor, and obstetric operations. More than fifty new illustrations, including three colored plates, have been introduced. The literature of the subject has been carefully reviewed, and the most important references since the last edition are given. In reviewing the former editions, we have spoken in the highest terms of this valuable work. Its great popularity, especially in the United States and England, is, we believe, well deserved. In all respects the book is admirable, and a credit alike to the author and the publishers.

Transactions of the American Electro-Therapeutic Association. Ninth and Tenth Annual Meetings, 1899-1900. Cloth, \$2.50. Philadelphia: F. A. Davis Company, publishers.

The treatment of disease by electricity in one or other of its various forms has been so largely heretofore in the hands of

charlatans, that the general profession is rather prone to look askance at any claims made for its use even by physicians. Possibly this feeling is being, to a certain extent, fostered by the very enthusiasm of those who have rescued it from the quacks, and who themselves promise great things from the use of an element as yet but little understood. It is time that great and useful discoveries as to its applicability have lately been made, and that it should be given a fair and careful trial in medicine. A work such as this gives an insight into the work being done and the great difficulties which have to be overcome. Being a society's transactions, it shows that the members have faith in their methods and are willing to submit them to the medical public for criticism. The book should be looked into by all who wish to have a broad knowledge of medical topics.

A Treatise on the Acute, Infectious Exanthemata. -Including variola, rubecula, scarlatina, rubella, varicella and vaccinia, with especial reference to diagnosis and treatment. By WILLIAM THOMAS CORLETT, M.D., L.R.C.P. (Lond.). Professor of Dermatology and Syphilology in Western Reserve University; physician for diseases of the skin to Lakeside Hospital; consulting dermatologist to Charity Hospital, St. Alexis Hospital, and the City Hospital, Cleveland; member of the American Dermatological Association and the Dermatological Society of Great Britain and Ireland. Illustrated by twelve colored plates, twenty-eight half-tone plates from life, and two engravings. Pages viii-392. Size, 6½ by 9½ inches. Sold only by subscription. Price, extra cloth, \$4.00 net, delivered. Philadelphia: F. A. Davis Company, publishers, 1914-16 Cherry Street.

This book, with its many fine plates, ought to be a great help to the student and young practitioner not very familiar with the exanthemata. Those familiar with the clinical pictures of those diseases will not find so much of value except that it is in handy form for reference, and treats of these disease forms very fully. It ought to be read by those not thoroughly well acquainted with its subjects, and kept in mind by those who know them well, remembering that it is practical, and written by one who has had a large experience with the diseases of which he writes. Especially is this true of smallpox, and the descriptions of the various forms of this prevalent disease are well worth reading.

Johnnie Courteau. By WILLIAM HENRY DRUMMOND. Illustrated by Frederick Simpson. G. P. Putnam's Sons: New York and London.

If Robert Burns is the recognized exponent of the common people of Scotland, then William Henry Drummond is pre-eminently the gifted and genial interpreter of our French-Canadian life. In "Johnnie Courteau" we have a collection of ballads of which any country might feel justly proud. In every line there glows the true poetic fire. In this volume we

have thirty-four gems of the Muse. Every page sparkles with genius like fire-flies in an Indian grove. The delineation of "The Country Doctor" is simply superb, and may take rank with that charming creation of Ian Maclaren's "Dr. McClure." William Henry Drummond sings to the heart, and the men and women are a great multitude who will be made happier and better because of the songs he sings.

A Text-Book of Diseases of Women. By CHARLES B. PENROSE, M.D., Ph.D., formerly Professor of Gynecology in the University of Pennsylvania. Fourth edition, revised. Octavo volume of 539 pages, handsomely illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$3.75 net. Canadian Agents: J. A. Carveth & Co., Toronto, Ont.

Regularly every year a new edition of this excellent text-book is called for, and although it is distinctly a text-book, it appears to be in as great favor with physicians as with students. Indeed this book has taken its place as the ideal work for the general practitioner. The author presents the best teaching of modern gynecology, untrammelled by antiquated ideas and methods. In most instances only one plan of treatment is described. This is a great advantage, since it prevents confusion on the part of the reader, and also gives space for carefully detailed instruction in the methods recommended. In every case the most modern and progressive technique is adopted, and the main points are made clear by excellent illustrations. The new edition has been carefully revised, much new matter has been added, and a number of new original illustrations have been introduced. In its revised form this volume continues to be an admirable exposition of the present status of gynecologic practice in this country. We can cordially commend this work.

American Edition of Nothnagel's Encyclopedia.—Typhoid and Typhus Fevers. By D. H. CRESCHMANN, of Leipzig. Edited, with additions, by William Osler, M.D. Professor of the Principles and Practice of Medicine, Johns Hopkins University. Handsome octavo of 646 pages, illustrated, including a number of valuable temperature charts and two full-page colored plates. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto, Ont.

The original German edition of this volume is universally recognized as the standard authority on the subjects of which it treats. The American edition, however, even surpasses the German, for, besides containing all the material of the original, extensive additions have been made to almost every chapter, thus incorporating into the work the very latest views on the subjects under discussion. The chapter on bacteriology has been thoroughly revised and much new material added, giving prominent consideration to the distribution of the typhoid

bacilli, especially in the urine, the rose-spots, and the blood. To the chapter on pathology many minor additions have been made, incorporating the important work of Mallory. The literature on the localized lesions due to the bacillus has been carefully reviewed and made to conform to the most recent advances in that part of the subject. Thayer's exhaustive study of the state of the blood has been utilized, and the surgical aspects of typhoid fever have been fully revised with the aid of Keen's monograph. Much valuable material has been added to the chapter on diagnosis by bacteriologic methods, particularly with reference to the recent work in blood-cultures and on the detection of bacilli in the urine. The chapter on perforation and peritonitis has been practically rewritten, as has also the section on the hepatic complications of typhoid. Thus it will be seen that the American edition of this valuable work, while still possessing all the commendable qualities of the original German, is greatly enhanced in its field of usefulness by being brought strictly abreast of the latest literature on the subjects, and by representative specialists.

Clinical Examination of the Urine and Urinary Diagnosis. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. J. BERGEN OGDEN, M.D., Instructor in Chemistry, Harvard University Medical School, etc. Illustrated. Price, \$3.00 net. Philadelphia: W. B. Saunders & Co. Toronto: J. A. Carveth & Co., Canadian agents.

The author's aim in this work is to present in a concise form the chemistry of the urine: the most approved working methods, both qualitative and quantitative; and the diagnosis of diseases and disturbances of the kidneys and urinary passages. A very important feature of the book is the fact that Dr. Ogden goes beyond mere urinary chemistry and treats in detail the important subject of urinary diagnosis, and the application of information furnished by careful chemical and microscopical examination. One of our best teachers of chemistry and clinical medicine in Toronto has expressed the opinion that this is the best work of the kind published from the student's standpoint.

A Book of Detachable Diet Lists. For Albuminuria, Anemia, Diarrhea, Dyspepsia, Fevers, Gout, Obesity, Tuberculosis and a Sick-room Dietary. Compiled by JEROME B. THOMAS, JR., B.A., M.D., Instructor in Materia Medica, Long Island College Hospital, etc. Second Edition. Revised. Philadelphia: W. B. Saunders. Toronto: J. A. Carveth & Co., Canadian agents.

This is an exceedingly useful book for the general practitioner. The various diet lists for the different diseases mentioned are made out with great care and judgment, each list containing a generous variety to select from. We have much pleasure in recommending this to our readers.

The Canadian Practitioner and Review.

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NO. 2.

Original Communications.

SMALLPOX AND VACCINATION.

JOHN CAVEN, M.D., TORONTO.

During the year 1898, and till the end of February, 1899, there were reported in Ontario 46 cases of smallpox with no deaths; in 1899, 341 cases, 14 deaths; in 1900, 163 cases, 13 deaths; in 1901 there were reported 1,879 cases, with 12 deaths. Up to the date of writing in the present year there have been reported 700 cases, with 4 deaths, 2 of these from the hemorrhagic type of the disease. The disease is becoming of a more severe type, as is common in smallpox and kindred infections. This is proven by the fact that the average detention in hospital or quarantine has considerably increased for the last few months, that the death rate is rising, and that a smaller proportion of cases can be classed as varioloid, a larger as discrete and coherent or confluent smallpox.

The condition of affairs in our own Province being such as represented, and taking into account the added circumstance that a very considerable epidemic of smallpox exists in the United States at the present time, there can be no two opinions as to the necessity of employing all possible means to combat the disease. The means at present at our disposal are threefold: (1) Police measures; (2) Sanitary measures; (3) Protective vaccination. Of police measures it is not necessary to say more than a word. No one doubts their usefulness when carried out with common sense and honesty. The most perfect measures of this kind hitherto devised, even when their application has been comparatively strict and conscientious have, however, failed to control ultimately the spread of smallpox when once it has

obtained footing in a community such as ours. The present outbreak in the United States and Canada is proof of this. Starting, as the epidemic has done, in the United States, it is impossible to imagine that Canada, with its geographical relationship to that country, could be kept free by any police measures. The extent of the boundary line, ignorance of the signs and symptoms of the disease on the part of physicians and public, together with lack of conscience on the part of individuals, must neutralize to a greater or less extent the efforts of Health Board officials. Especially is the difficulty great, where, as between these two countries, individual commercial interests may seem to be imperilled by regulations.

Improved measures of sanitation have been given by anti-vaccinationists, a large part of the credit for any diminution in smallpox epidemics and mortality noticeable in the past. It is argued that the great falling off in extent, severity and mortality, seen in the early part of the nineteenth century, as compared with the eighteenth, is due largely to sanitary measures, not to vaccination. It is also true that certain "cosmic" or "secular" influences are said to govern more or less the incidence and extent of epidemics, but so far as our present knowledge goes, absolutely no proof has been adduced in support of this contention, and it may therefore be set aside. A general answer to the "Sanitation Theory" is found in the fact that the decrease spoken of occurred in countries where there is no evidence that sanitation made any progress during these years but in which vaccination became general. (V. Report of R. Com. on Vaccination, pp. 85, *et seq.*) It is also noteworthy that certain other infectious diseases which are, undoubtedly, quite as much controllable by police and sanitary measures as smallpox, or even more so—measles, for instance, increased during the very years when these means are given the credit of having diminished smallpox to a marked extent. Moreover, it is worth while remembering that smallpox attacks the cleanly and those careless of personal cleanliness, the healthy and unsound impartially. A sane body apparently assists to a favorable termination of the disease, but not in an appreciable extent to resistance of infection. Infection may occur through contact, food, drink or be air borne. It is not difficult to believe that careful observance on the part of *all*, of certain well considered rules based upon scientific experiment may, to a large extent, control the spread of disease through the first three modes of infection, but in the case of aerial carriage of germs it is not supposable that we can at all successfully intervene. In the case of smallpox we are at special disadvantage on account of the wonderful infectiveness of the virus and its power of clinging to person or clothing, so that

the probability of communicating it even at a second or third remove from the source is great. Fortunately, the evidence we have goes to show that smallpox germs are not effective through very great stretches of air. Leroy, bacteriologist to the State of Tennessee, says that "at a distance of 100 yards little or no danger may be apprehended." Sunlight and fresh air are rapidly fatal to the germ. It is therefore difficult to estimate to what extent it may be effectively dust borne, but we must remember that it multiplies in the eruption and is found in the excretions and secretions of the body. The *opportunities* for its spread in dust must be very great.

Whilst then it cannot be held that police and sanitary measures will avail to control the spread of smallpox, it is well to call attention once more to the fact that isolation and limitation of the number of cases so far as possible, are useful not only as such, but as tending to restrain the severity of the type, in any spread the disease may make. It has been demonstrated experimentally that different forms of pathogenic organisms diminish rapidly in virulence—even to loss of pathogenicity—when cultivated from generation to generation outside of the animal body. It has also been proven that virulence may be gradually restored and increased in intensity by subsequent passage of the same organisms through the animal body. These facts have been established of various "pathogens," notably of the streptococcus pyogenes. Observations upon many epidemics of infectious diseases confirm these laboratory results. The returns of the smallpox epidemic amongst our own people already quoted above, show that the degree of mortality which has characterized the outbreak till the present time is sure to increase unless adequate measures of prevention be undertaken and carried out.*

Leaving the questions of police and sanitary measures in controlling smallpox, in the employment of which, at any rate, all are agreed, let us turn to that of protective vaccination. Here, strange to say, we do not find the same unanimity of opinion, even though the evidence as to good results attained be equally or more conclusive. It may seem unnecessary that we should define protective vaccination as *successful* inoculation with the virus of cowpox. Experience has shown, however, that in the attempt to discredit this method of protection it has been not uncommon to classify those upon whom vaccination has been *attempted*, as *vaccinated*, whether the result has been successful or not. This is specially true of revaccinations, and in this connexion it is well to note that when protection seems urgently called for, failure of successful inoculation at the first

* Smallpox epidemics increase in severity in cold climates, decrease in warm.

attempt in the case of any individual ought not to be taken as proof of insusceptibility to smallpox, as is too often done. A single exposure to the virus of any disease is not necessarily followed by infection and various causes arise to prevent vaccination operations being successful. The operation should be repeated several times, leaving just sufficient intervals to prove that previous attempts have failed.

The question of the relation of cowpox to smallpox is an interesting one from both the academic and practical stand-points. It is just possible that in certain instances protection in some degree may be conferred by the use of lymph *even though no local reaction occur*. Copeman has observed this in experimenting with the calf in the case of vaccinia, and Chauveau, Copman and Klein have done so in the case of variola. It certainly would not be wise to trust to the chances of such a course of events, but in it we may possibly find an explanation of some cases of apparent immunity from both cowpox and smallpox. All that is known of immunity from infectious diseases as conferred by previous attacks would lead us to expect that variola and vaccinia must be the same disease, or variations of the same disease. Many attempts have been made to demonstrate the connexion or identity of the two by inoculation of bovines with variolous lymph, with the hope of giving rise to vaccinia, and although the majority of investigators have reported some successes these appear to have been relatively few, and amongst the failures are those of Chauveau and the Lyons Commission. Yet one positive result is worth more than an unlimited number of negatives if it be attained by rigidly correct methods. In spite of the failure of Chauveau to produce typical cowpox by means of smallpox virus it is very suggestive that the animals subjected to experiment could not subsequently be infected with cowpox, lymph of proved potency being used, and that, although they were known to have never previously suffered from vaccinia. Even in those cases in which variolation of bovines has been considered successful, the results have shown but little resemblance to human smallpox and have not been typical of vaccinia until three or four removes from the first animal. Ceely's remarkable observations have not as yet been duplicated so far as we can find out. "He records an instance in which five out of eight milch cows sickened with cowpox within twelve or fourteen days of their having been seen to be licking over a quantity of flock from the bed on which a patient had died of confluent smallpox and which had been spread out on a field for purification." Copeman, whose words have been quoted above, tried to reproduce the experiment by feeding lymph from variola in saline solution to a young heifer. The result was a mastitis, but with-

out other signs of smallpox. It seems, then, we must assume that some modification of the smallpox germ takes place either within or without the human body before it can give rise to cowpox. Copeman's experiments upon monkeys are most interesting and have apparently indicated in a general way the direction in which we must look for an explanation of these features of vaccination, which have been puzzling when considered in relation to immunity as known to be conferred in the case of infectious diseases other than smallpox. In these experiments monkeys were inoculated with lymph from various individuals, with humanized vaccinia lymph and with bovine lymph, and it was found that any one of these lymphs rendered the animal inoculated, *proof against the others*. It has further been observed that infection of bovines with variolous matter is much more readily brought about if the virus have been first passed through the monkey; usually, it is said, at the first attempt. We have, then, in forming our conclusions as to the relationship existing between smallpox and cowpox to take into account what we know of acquired immunity in general, the results of certain accidental transferences of the diseases and the results of purposive experiments, and on all grounds we must admit a very close relationship, if not identity.

The problem of the connexion between smallpox and cowpox while both scientifically and practically important, is, so far as the community is concerned, much less so than that of the protection conferred from smallpox by vaccination. Anti-vaccinationists, though few in numbers, have always been strenuous in their opposition to the practice of vaccination and have in some countries—England for example—made their influence to be largely felt. Two chief reasons are advanced why vaccination should not be carried out: 1st. That it is futile as protective; 2nd, that it is frequently accompanied by accidents and complications, and may leave sequelæ which are disastrous to the individual, and may even terminate in death. In all matters affecting the State the "Safety of the Community is the Supreme Law." If it can be shown, and we do not doubt it can, that vaccination properly carried out, even though disastrous results to certain individuals may in some rare instances follow, is any considerable protection against the ravages and mortality of smallpox, then, till we can replace it by better means, vaccination we must make use of. And this involves the propriety of compulsory vaccination not merely the optional acceptance of something recommended. An appeal to statistics ought to be final in this matter, but here, as always where statistics are called in to witness, we find accusations of manipulation made by both sides.

Anyone who is desirous of looking into the matter will see in the first volume of the Report of the Royal Commission on Vaccination, dealing with investigations made in England in the years 1889-97, a statement both most impartial and convincing. It needs no proof that the members of this Commission were men entirely above suspicion as to motive and of the highest scientific standing.

On the general question as to the protective power of vaccination we may condense the results of the Commission's inquiry as follows:

That the death rate in smallpox is much higher among the unvaccinated than the vaccinated and that there is "less liability to smallpox among the vaccinated than the unvaccinated." To the latter statement is added the statement that "the protection enjoyed by vaccinated children under ten years of age is greatly in excess of that enjoyed at a more advanced period of life."

Lastly, it is concluded that the disease, smallpox, is likely to be less severe in type when occurring in the vaccinated than when in the unvaccinated.

These statements are made so moderately and after so careful and detailed an examination of information from all sources that one could hardly credit disbelief to anyone but a Christian Scientist. Further, we find great support for the Protective theory in the facts that all the principal Governments of Europe have demonstrated their faith in it by making vaccination compulsory in their armies: that Germany, with compulsory vaccination of both infants and school children since 1874, has abolished smallpox epidemics from the country, and that the introduction of compulsory vaccination into Italy in 1888 made an immediate diminution in smallpox mortality. In Prussia vaccination was made compulsory in 1874. Previous to that time the mean death rate from smallpox per 1,000,000 persons was 309 yearly; since 1874 it has been 15 per 1,000,000 and for the last ten years 7 per 1,000,000.

Much more of the same sort of evidence has been accumulated but it would be useless to multiply instances in a paper such as this.

Then when we consider that smallpox was the most persistent and fatal disease of the eighteenth and some previous centuries, we must look for an adequate explanation of the change.

Making all due allowance for the effect of police and sanitary measures, it is impossible to believe that they alone have so essentially modified the situation. We have already stated that there is no proof whatever of the so-called cosmic influences which are supposed by some to regulate outbreaks. We are forced then to look for some other explanation of the unde-

niable improvement of the situation during the last century, and the introduction of vaccination is indicated with no uncertainty.

If we are satisfied that vaccination has to any marked degree controlled smallpox as regards both the number and severity of cases, the second great objection to its use should vanish. The number of instances in which it can be shown that *serious* accidents of complications have occurred or that disastrous results have in any way been connected with vaccination as a cause, is infinitesimal when compared with the evils resulting from smallpox, where no protective vaccination is practised. The questions of causation and prevention of ill results to individuals from vaccination must, nevertheless, always be a highly important one to the physician. At the outset it may be stated that out of any large number of people who become infected with a disease, no matter how favorable a course it may usually run, some few on account of idiosyncrasy or deficient powers of natural resistance, will suffer much more than others. This is true of cowpox as of other diseases.

All complications may be divided into Unpreventable and Preventable.

The Unpreventable complications of vaccination are such as result from the inherent qualities of vaccinia together with peculiarities of individuals infected. Of these the majority take the form of abnormal skin eruptions and in very few instances are they at all serious. Pneumonia is a possible complication, but liable to occur only in very weak subjects who are otherwise unfavorably situated. Obviously, taking the ground we do, that vaccination is on the whole of great service to the community, in spite of all untoward circumstances which may happen in connexion with it, nothing is to be gained for our present purpose by further consideration of Unpreventable Complications.

(To be continued.)

A RESUME OF FACTS RELATING TO THE DIGESTIVE ORGANS IN THE INFANT.

By C. S. McKEE, M.D., TORONTO.

This paper is simply a collection of known facts relating to the digestive organs and processes of the infant. It is not possible to give authorities for all statements, but certain ones are named who have been doing research work along these lines recently.

It is not thought that men who have any amount of experience with infants will be able to gain any knowledge from this paper. Indeed, it is presupposed that all such have, if at all conscientious and desiring to thoroughly understand the numerous peculiarities to be observed in this class of patients, looked up all facts mentioned here for themselves. This is by no means easily done, and the physiological text books are rather unsatisfactory for reference in such matters. I have been so frequently asked regarding these matters and as to their differences from the adult digestive functions, and have seen so much alarm created by observation by physicians of seemingly serious illnesses produced by simple causes—the results being alarming simply because the normal was not known—that I have decided to collect, as far as possible, all known facts relating to these organs and put them together briefly for the use of those who have been unable to get them themselves.

It is absolutely impossible to prescribe a proper diet for an infant, or to treat any abnormal functioning of the digestive system, without knowing the normal. The adult digestion is presumed to be understood.

It must also be remembered that there is a comparatively wide limit of variation of a normal condition, according to the infant, before it becomes pathological.

It is only within the last twenty years that much research work has been done which is at all accurate: but within that time many interesting and instructive clinical and experimental researches have been carried on. These researches all show the great difficulties to be overcome, when artificial alimentation has to take the place of breast feeding, and help materially to a proper understanding of proper methods.

The anatomists and bacteriologists have also assisted greatly to a proper understanding of reasons for these peculiarities. The weak muscles, lack of development, small amount of secretions, presence of bacteria and the rapidity with which pathogenic germs gain a foothold when conditions become even slightly favorable, are well known.

It has been shown that some germs assist digestion, actively disintegrating albuminous matters, and also that digestion can be carried on perfectly in their absence, that is when the intestines are sterile. In this case, however, absorption is not so well carried on. The germs are absent from the mouth of the newly born, and gain entrance by means of the air. The pathogenic germs gain entrance mainly through cows' milk. The French claim that all milk should be sterilized, and some hold that no other modification whatever is required, even for the youngest infant. They also claim that results of cows' milk feeding are always less good than when breast milk is used; but on this continent, at least, most cases can be just as well fed as nursed.

The problem of milk feeding is also further complicated by the presence in the milk of the various species of animals, according to Escherich, of varying ferments in solution, and in varying quantities—these being very necessary to the young of the species, especially in the early months.

Suction.—This is a physiological act and the first step in the digestive process. The nipple is grasped between the tongue and lower lip below, the upper lip and jaw above, the whole tongue being moved forward on its base, and its sides turned up so that a trough-like formation is seen. The throat is narrow and easily closed by the soft palate, and by a strong downward movement of the lower jaw a partial vacuum is created, which produces the suction causing the flow of milk. Baginsky and Marfan claim that the tongue acts like the piston of a pump, but Ganier has proved that this is erroneous, and that the tip of the tongue is not drawn back. The aspiratory force developed by an infant in sucking varies from 20cc-70cc.

The greater work is called forth in breast nursing. Sucking cannot be carried on in the presence of deformities of the nose and palate.

Basch claims that the act is reflex, the centres being double and symmetrical, situated in the restiform bodies. The centrifugal nerves are the motor branch of the trifacial facial and hypoglossal; the centripetal, the sensory branch of the trifacial.

Saliva.—It is important to remember that the mouth is practically dry at birth and remains so for seven or eight weeks. Before this time the secretion is in very small amounts. This explains the frequency of certain diseases, so frequent at this time, of the buccal cavity. After four months the amount of saliva rapidly increases and, with the appearance of the teeth, becomes very free, announcing a change in digestive powers. Early in life it has very little power of changing starch to sugar, but at five or six months possesses this power and can

do so actively. On account, however, of the relatively small amount of saliva and the absence of amylolytic action in the pancreatic secretion, it is to be remembered that only a very small amount of starch can be acted on, and that the action ceases when the combined acid in the stomach becomes strong enough to destroy the ptyalin, which is about fifteen to thirty minutes after a meal has been ingested. Practically all the starch not acted on before this time escapes in the feces unchanged, or with only the erythroextrin stage reached, as can be very readily proved by testing the stools with iodine.

Triolo claims that the saliva has pronounced bactericidal powers.

Stomach.—This organ in the infant is almost cylindrical and nearly vertical in position. It is not till the end of infancy that the transverse position is assumed. The fundus is undeveloped and is not fully so till the end of childhood; the lesser curvature is relatively long. The muscular structure is weak, and the cardiac orifice unguarded, explaining the ease with which vomiting occurs. The pyloric muscles also are very slight.

The capacity of the stomach at birth is small: up to four months it increases rapidly, but for the next two the growth is almost nil, when it begins again and increases regularly till the adult stage is reached.

According to Rotch, the capacity at different ages is:

3 Hours after birth	25-30cc.
4 Weeks	" "	75cc.
2 Months	" "	96cc.
3 "	" "	100cc.
4 "	" "	107cc.
5 "	" "	108cc.

It is important to have at least a fair idea of the capacity of the stomach, as on this depends the amount of food to be given at a time. An exact estimate is not possible.

The secretions are of the same nature as in the adult, HCl, pepsin and lab-ferment, but, with the exception of the last, much weaker. The quantities also are less. Mucus cells are much more abundant, and chief cells very few in number. The lymph follicles are not at all well developed, except along the lesser curvature, until after the age of six months.

After a meal of mother's milk the reaction is neutral or alkaline, and of cows' milk, neutral or slightly acid for the first fifteen minutes, when gastric secretion begins, after which the reaction is always acid. The reaction of the fasting stomach is always acid, and usually free HCl is to be found.

Coagulation of milk, solution and digestion of albumin, takes place rapidly in the case of human milk. After such a meal,

the stomach is empty in one and a half to two hours: if cows' milk, from one half to one hour more is required, as the curds are harder and larger, while the curds of human milk are flocculent. Part of the digested proteids are absorbed directly with some of the sugar, salts and water, but most pass directly to the duodenum, in the form of acid albumin or albumose, where the digestion is completed. Marfan believes that the whole of mother's milk is digested and absorbed from the stomach, but in this country the stomach is believed to act mostly as a reservoir, where only the preliminary changes occur.

The acidity of the stomach is due to free HCl when the stomach is empty, and lactic acid and combined HCl during digestion.

During fevers HCl is absent or greatly lessened in amount.

HCl acidity one and a half hours after a meal, 0.13 per cent.

HCl acidity (free acid) 0.85 to 1.8 per cent.

Ac. lactic 0.1 to 0.4 per cent. (Jacobi says constantly 0.3 per cent.). This acid is said never to be found free in health.

In digestion of cows' milk, and some say of human milk, free HCl is never found in health, the casein, of the former more particularly, having a great affinity for HCl.

The lactic acid present is formed from the lactose by certain bacteria. It is more abundant in early infancy than later. In bottle-fed babies, the French claim that the percentage of HCl is as great as in the adult.

After the work of Hayem and Winter, and M. and H. Lable, the affinity $\frac{A}{C} \frac{H}{H} = X$ is less than one during the first months. In infants fed on cows' milk the affinity is greater than one, on account of the presence of acid fermentation. Lactic acid can take the place of HCl in digestion, but larger quantities are required.

The giving of water increases the secretion and digestive power of HCl, and assists materially the absorption of peptones.

Besides peptones, leucin, tyrosin, syntouin of the amino group are found in the stomach. These are more frequent and in larger quantities when lactic acid is present. Jacobi claims that albumose is the last product of digestion in the stomach of the infant.

The aiding of digestion of the casein of cows' milk, by adding cereal decoctions, is acknowledged as rational by all leading pediatricists; Jacobi for many years has fought for this. Whether it helps, by rendering the curds more flocculent, I do not know, but it does certainly make them softer and capable of being much more easily broken up and acted on by the ferments. It is not necessary in the early months, when the percentage of proteid is small, but later, with increased strengths it is very useful.

Intestines.—Looking on an infant from the side, the abdomen is always seen to be somewhat protuberant, on account of the large volume of the liver and intestines, and the absence of the lumbar curvature of the spine. No protrusion should ever be seen towards the sides, normally.

That the liver has very important functions to perform in the child is seen by its large size. In the infant it averages 3.5 per cent. of the body weight, as compared with 2.5 per cent. in the adult. Bile is present as early as the third month of intra-uterine life. Its blood-forming function disappears at birth, but others appear, glycogenic, urea-forming, toxin destroying and eliminating, etc. These last are not very active in the infant, as is shown by the ease with which toxic infection takes place through absorption of toxic products from the intestine.

The bile is secreted abundantly by the liver of the child; it contains few organic salts (but those of iron), little cholesterol, lecithin, fats and especially small amounts of bile acids. Particularly is glycocholic acid scanty, which is on one hand favorable to the organism, as this acid has an arresting action on digestive powers of the intestinal secretions, which are already weak enough. On the other hand its absence increases the difficulty in the absorption of fats, from which it is seen that very fat milk mixtures are not to be given.

Tissier states that while bile is not bactericidal it is antitoxic.

Bile pigments and urea are abundant, and are excreted in the meconium along with a red oxidation substance. Stools containing bilirubin are changed to a green color by the formation of biliverdin on exposure to the air.

The pancreas is large at birth. Trypsin and steapsin are present in small amounts, but amyllopsin is absent till the fourth month. Towards the end of the first year it is secreted in larger quantities and is as active as in the adult, changing cooked starch almost instantaneously.

The length of the small intestine is relatively greater in the infant than in the adult; its proportion to the length of the large intestines much greater, six to one, or nine and a half feet to one and a half feet. The muscular structure is very weak. The duodenum is relatively very long. The sigmoid flexure is more than half the length of the large intestine, is much more curved and is situated almost wholly in the abdomen, instead of the pelvis, as in the adult. The mucosa and lymph follicles are well developed, mucous cells very numerous, the villi very vascular, nerves numerous and perfectly myelinated. The valvulae conniventes are scarcely apparent.

The reaction of the intestines is acid, due to the presence of

organic acids. This acidity does not interfere with pancreatic digestion, and decreases as the lower part of the small intestine is reached.

The succus entericus is alkaline and probably, besides helping to render the chyme less acid, assists in the changing of starch to sugar. Marie says it breaks up lactose.

The products of digestion are mainly absorbed from the upper part of the small intestine. Except in the duodenum, absorption is less active than secretion. The food not acted on and digested in the stomach passes on to the duodenum and mixes with the intestinal secretions, and the acid albumin, etc., acted on by the trypsin. Rachford claims that HCl albumin is acted on by the trypsin in the presence of bile much more easily than alkali albumin, a fact having a great bearing on the feeding of sick infants. Digestion, therefore, goes on most rapidly where absorption is best. Trypsin can act if the medium is alkaline and as the acidity of the intestine becomes less as the lower part is reached, it is able to act throughout the whole length. That most of the proteids are digested in health is seen by the small amount found in the feces.

The processes of absorption are pretty much the same as in the adult. The lactose is completely absorbed, almost all the proteids, but only three-fourths of the fat.

The putrefactive products found are skatol, phenol and indol, toxins, partly absorbed and destroyed in the liver, and partly eliminated in the infant's stools. Baginsky holds that indol is the only one of these products found, and then in very small amounts, in the motions of a healthy infant.

Bacteria.—*B. coli commune* and *B. lactis ærogenas* are the two varieties found constantly, the first being most abundant in the lower bowel and usually the only variety in the feces. *B. lactis* disappears as the diet is changed from milk, and is believed not to be pathogenic. That *B. coli* may become so, under certain conditions, is pretty generally acknowledged now. Nothing much is known as to whether these bacteria are indispensable for purposes of digestion, but they are said not to be necessary.

Feces.—In the infant frequent stools are the rule—3-5 daily for the first two months; but also constipation is easily brought about on account of the weak muscular structures, and, at times, by an abnormally long and much curved sigmoid flexure being present. The stools grow less frequent, until at eight to nine months there is only one a day usually. The first few days they consist of meconium and number from four to six daily. Its expulsion begins six to twelve hours after birth, never longer than twenty-four, and continues for four or five days. It is a soft, dark, inodorous substance, and consists chiefly of bile,

epithelial debris and secretions from the intestine. The stools continue greenish for some days and then take on the normal golden-yellow color. If cows' milk is being used for feeding, the stools are lighter in color and not of the normal yolk-of-egg consistency. These normal stools have an insipid, slightly acid smell, and slightly acid reaction. On exposure to the air they turn greenish, but should not be green on being passed after the first few days.

In the case of infants fed cows' milk the stools are larger, paler and more formed, due to the presence of more casein. They also contain more fat and have an alkaline or neutral reaction. Greenish stools, that is green on passing, are more frequent when cows' milk is being fed. The stools of bottle-fed babies have more odor and are likely to be cheesy or foul.

Fat should not be visible to the naked eye, but should be thoroughly mixed with the motions, as should the mucus, which is present in much larger quantities proportionately, than in the adult's stools. Fat forms, on an average, 25% of the dry residue of feces.

Microscopically, are found the bacteria named above—bilirubin crystals, lactate and oxalate of lime, cholesterol crystals, epithelial debris, large and small fat droplets and starch granules, if this is being added to the food.

Selected Article.

ON THE PHAGOCYTIC DEFENSIVE POWER OF THE LYMPHATIC GLANDS AGAINST THE SYPHILITIC VIRUS AND ON THE SEMEIOLOGICAL VALUE WHICH BELONGS TO THE DIFFERENT ADENOPATHIES IN SYPHILIS.*

BY PROFESSOR TOMMASO DE AMICIS,
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In the rapid and incessant progress which the experimental sciences are making in the field of the infections, principally in the investigation of the nature of the infective agents, much light has been thrown on the mechanism of the action of the germs which assail the organism, and upon the natural defences which the organism can make against them. Not all the infections lend themselves easily to the same investigations, and in some of them one is obliged to judge only by analogy, comparing them with the infective states, which have been more or less completely studied. That is precisely the case with syphilis: we are ignorant of the real nature of its specific agent, but we are quite justified in claiming that it is a microbic parasitic element, as in the case of other diseases, which may resemble it (tuberculosis, leprosy, etc.). In spite of this ignorance, the clinical study is complete as to the mode of action of the infective principle from the beginning to its last manifestations.

It is well known that, after the inoculation of the virulent principle in a point of the organism, there is a period of incubation, after which there arises in that point a lesion which represents the initial poisonous focus. From this point the virus, passing through the lymphatics, penetrates the nearer glands, stops there and forms, with the adenopathy which accompanies it, its first station. It multiplies there and penetrates farther into the glandular system until it enters the circulation. Here the infective products gradually accumulate, so as to form the constitutional infection. The blood, now filled with the infective elements, flows into the other glands, which, in their turn, retain the virus, multiply it and in part preserve it and in part pour it into the circulation, and thus we

* Translated from *Giornale Internazionale delle Scienze Mediche*,
By HARLEY SMITH.

have the further localizations in the different organs and tissues of the animal economy. In this way are constituted the various stages in the evolution of the infective process.

It is therefore claimed that the lymphatic glandular system in syphilis forms the best soil for the development and preservation of the poisonous elements. Hence the cellular hyperplasia which produces the multiple swelling of the lymphatic glands, whether the adenopathy is primary or secondary, has represented one of the most important facts in the localization of the infective principle; and in the greater number of cases the hyperplasia has been considered as the measure of the intensity of the infection in the organism.

This is the opinion which has hitherto been held as to the participation of the lymphatic system in the syphilitic infection; are we right in changing this opinion? This is the question which we must answer, taking into account the additions to our knowledge acquired as a result of experimental investigations, and comparing them with the answers given us by enlightened clinical experience, which is always the supreme tribunal to which we must appeal in doubtful cases, because it represents the most extensive experimental field which nature can present to us.

It is important to examine if the phagocytic theory is able to change our views. If we look closely at each anatomical element in the animal organism, we see that it can be considered as an individual which, in the exercise of its vital activities, can act on its own account and also help the whole of which it is a part. Each cell, having to provide for its relative nourishment, appropriates to itself those substances which are more adapted to it. Not infrequently, however, it nourishes itself also at the expense of other cellular elements, incorporating them into itself (De Bruyne). Hence there are cells which nourish themselves by devouring other cells—the process of *phagocytism* or, better, *cytophagism*. This feeding on other cells, while it is profitable to the cell itself, can also be sometimes helpful to the whole organism, because it may free the latter from unwelcome guests.

We know that Metschnikoff, of Odessa, (*Virchow's Arch.*) was the first to direct the attention of observers to the service which the "cytofagi" leucocytes could perform in the struggle of the organism against parasitic diseases. He studied the phenomenon in the living subject, in the parasitic disease of the *Daphni*, little transparent animals, whose parasites are fungi which bud, producing spores. These elements, as they introduce themselves into the circulation, are attacked and gradually devoured by the white globules of the little Crustacean.

Subsequently, by the studies of De Bruyne on the cytophagism of the leucocytes of the blood of the molluschi, and the studies of Werigo (1892) on the behavior of the leucocytes towards foreign bodies introduced into the blood, and also by the researches of Kanthnaek and Hardy on the white globules of the blood of the frog—by all of these studies our knowledge of phagocytism has been perfected.

The last authors (Kanthnaek and Hardy) distinguish three kinds of white corpuscles in the frog, called by them *wandering cells*, because of their power of passing from the blood into the tissues. The first are *eosinophili*, because they are colored red with *eosine*, and also when subjected to the action of a mixture of eosine and methylated blue. The second, *jaline*, remain colorless, not showing a preference for any of these coloring substances. The third take up large quantities of methylated blue, which makes them rose-colored. Those of the third species are few in number.

The three kinds of wandering cells have each a special office in the hunt for bacilli, as the aforesaid authors were able to study in the bacilli of carbuncle inoculated in a drop of lymph.

The eosinophili cells serve to gather the prey together, they rush where the bacilli are found and encircle them, placing themselves side by side, so as to form a mass like a plasmodium. The jaline cells arrive after the former, since they do not know how to search out the bacilli, but go where the eosinophili cells guide them. The latter leave the prey untouched, to be devoured by the former. At this moment there arrive on the field of battle the cells of the third species, which the authors call *basophili*, and since they appear at the end of the struggle it is supposed by the authors that they have the duty of clearing the ground of the refuse products. Finally the *jaline* cells, having done their work, separate themselves from the plasmodium, and resume their migrations.

Now, after these studies, judging by analogy, it has been claimed that the leucocytes of the higher animals must behave in much the same way in their struggle against the microbes of the different infections, which try to attack the organism; and in this way one would explain the special manner in which the organism reacts, often successfully, in the various diseases.

The lymphatic glandular system by its great extent, its distribution and relation with the peripheral lymphatic channels, must be considered as a barrier to the admission of foreign substances, which try from without to invade the organism; and the lymphatic glands can therefore be considered as stopping-places for the invading elements. This has been thoroughly investigated for inorganic corpuscular substances, as cinnabar and coal dust, and china ink. Hence, by induction,

the same has been taken for granted, with respect to pathogenic micro-organisms, chiefly in those infections in which the first stop was a glandular station; and then some investigators, going a step farther, have thought that the lymphatic glands, having a maximum phagocytic power, were intended also for the destruction of the microbes which were contained in them. *Augagneur* has therefore concluded that when the glands were acting energetically, the phagocytism was modifying the infective agent, and that therefore an intense adenopathy was a favorable phenomenon in syphilis, because it indicated the defensive power of the organism rather than the offensive energy of the virus (Feb. 1895). *Landouzy* was of the same opinion. *Labbé* (*Presse Medicale*, 1899) also claims that the lymphatic gland can be considered as an arresting organ, charged with the duty of stopping those bacteria, which have escaped from the leucocytes and from the endothelia at the point of inoculation and along the lymphatic channels—constituting thus a second centre of phagocytosis. The size of the gland therefore would indicate rather the degree of resistance of the subject than the gravity of the disease. The absence of lymphatic swelling in syphilis would be, according to *Labbé* and *Landouzy*, of evil import because it would indicate that the protective action of the lymphatic organs is insufficient.

Now, we would have no difficulty in accepting the opinion of these authorities as to the importance of the swelling of the glands in the course of the syphilitic infection, if clinical experience corresponded with the conclusions they have drawn from the phagocytic theory applied to the glandular system.

Daily observation shows very often that the great number and the notable development of the glands coincides frequently with a syphilis of great severity. Not rarely we observe cases of mild syphilis accompanied only by slight glandular enlargement. In proof of this fact, many cases, which fell under our observation, were reported five years ago in a thesis elaborated in this Institute (The Institute of Dermo-Syphilopathy of the University of Naples) by Doctor Michele de Amicis.

When, therefore, clinical proof is not in accord with theory, we must argue that the latter is not exact or that it is wrongly applied in the special case. Indeed, leaving out of consideration the existence of microbes, which live and multiply within the cellular element (tuberculosis, leprosy), the phagocytic power of the lymphatic glands is far from being proven and the most recent studies seem to indicate that this power is quite hypothetical.

Prof. Manfredi, Director of the Institute of Hygiene at Palermo, by a series of investigations as to the importance of the lymphatic glandular system in the modern doctrine of in-

fections (1898), has thoroughly studied this question from the above point of view. His experiments prove clearly that "the gland can for a longer or shorter time retain within its parenchyma a pathogenic bacterium, without any loss of vitality of the latter," while in the blood and in the connective tissue the microbes are more or less rapidly destroyed by the phagocytic power of the leucocytes or by the germicidal action of the blood-serum.

Every gland can be regarded as an accumulator of pathogenic bacteria, because neither the phagocytic theory nor the humoral theory can be applied to it, inasmuch as the leucocytes in the lymphatic glands are, for the most part, young, small elements, to which Metschnikoff has denied any phagocytic power. Only rarely are the large mononuclear and polynuclear leucocytes—the real phagocytes, which abound in the other organs—found in the glands. Therefore we cannot accept the theory that the lymphatic glands are the organs in which is exercised the most active phagocytic power of the organism, because in them are produced those leucocytes which have no phagocytic property. Nor can we apply the modern humoral theory, as to the bactericidal or antitoxic property of the blood and of other organic liquids, because it has been clearly proven by the experiments of Pagano that the lymph has no such property, but constitutes a good medium for the cultivation of micro-organisms. Therefore the peculiar power of the lymphatic glandular system of separating and entertaining not only the inert powdery substances, but the micro-organisms; and also the absence or extreme deficiency in that system of those bactericidal influences which everywhere concur in maintaining the asepsis of the living and normal tissues, explain how in an infective process, which may be cured, the special pathogenic agent may remain for a long time in the latent state an inhabitant of the glandular system, forming thus a *latent microbism*. This latter may manifest itself anew, given any cause which weakens the natural resistance of the organism. The organism thus becomes a victim of new explosions of the same virus which has been preserved in the glandular system.

The lymphatic glands therefore, in the struggle which the organism wages against the bacteria, while on the one hand by blocking the way to the micro-organisms they act as organs of defence, yet on the other hand, by keeping them alive, act as dangerous depositories of infective material in the animal economy.

Now these experimental deductions are in perfect accord with what clinical experience shows us as to the evolution of the process of syphilitic infection, and we accept them willingly, because they explain experimentally what is clinically observed.

They confirm entirely the opinion that the glandular tissue may be an opportune medium for the cultivation of the possible pathogenic micro-organism of syphilis whose biology is unknown to us, this infection being a sad prerogative of the human species. They also support us in claiming that the lymphatic system in syphilis represents the location where the poisonous elements find all the conditions favorable for their further development. It is easily understood, therefore, how the primary adenopathy, faithful companion of the initial lesion, and also the secondary adenopathies, more or less developed, represent the diffusion and multiplication of the infective products. It is also clear how, after the syphilemia has occurred by the continual pouring of the poisonous products from the glandular system into the blood, the various localizations in the different tissues are determined during the eruptive period, and this being past, the swelling of the glands remains as an exponent of the persistent infection. It is not difficult to understand the long pauses which are observed in the course of syphilis, given the possibility of a *latent microbism* which may exist in the glands not accessible to direct observation, in which the infective germs may be preserved for a shorter or longer period, always retaining their vital activity, which it would not be possible for them to preserve in the other tissues owing to the bactericidal means with which the normal organism is endowed, making it therefore a perfectly sterile medium.

Rightly had the prince of pathologists, Virchow, long ago declared that the syphilitic infection represented, not a permanent, but a transitory, dyscrasia in the blood; and that its chronicity was due to the persistence of the morbid elements hidden in the organism, and to the pouring of these from time to time into the circulation; and that the lymph tissue was the receptacle of these infective germs.

It is true that the adenopathies, both primary and secondary, are not uniformly developed in all persons: in some being more, in others less, marked. This fact, as most syphilographers agree, must be attributed to the greater or lesser activity of the infection in the different organisms, or to their varying vulnerability. In this way the clinical value and the pathological significance of the adenopathy remains unchanged.

Nor is this conclusion negated by the power assigned to the lymphatic glands of attenuating the virulence of pathogenic bacteria, not admitting the existence in them of phagocytism and of the antiseptic properties in the products of the glands, since we do not know the mechanism with which the glandular parenchyma can influence the pathogenic bacteria in order to lessen their virulence.

Manfredi, who has proven this power experimentally, is

inclined to attribute it to particular biochemical influences intimately related to the special structure and functions of the glandular apparatus, which are not found in other organs and tissues.

Clinical experience shows that the great number and the exaggerated development of the glands in many regions coincide frequently with syphilitic manifestations more or less intense, and adenopathies reduced to the slightest expression accompany a mild syphilis. We cannot, as Fournier well says, elevate that to a general law, and establish a constant relation between the gravity of syphilis and the quality of the adenopathies; because no law can be absolute in nature, and because many other factors may concur to render the course of an infection more or less severe, determining a greater vulnerability in the affected organism by diminishing its degree of resistance. But common experience shows us, in the greater number of cases, that severe forms of syphilis are marked by multiple secondary adenopathies; at least this has been my own experience and also that of several colleagues, including Prof. Gèmy, who has found that in the Algerians, whose syphilis is generally severe, the glands are almost always very numerous.

Modern researches, therefore, do not destroy, but rather confirm, the semeiological value which had been given to the lymphatic glandular system in the syphilitic infection, in which the swelling, whether in a group of glands or in a single gland, may represent a *residual infective focus*, the seat of a *latent microbism*. Experimentation and clinical experience are therefore in perfect accord, and that shows that the interpretation is just and exact.

We can, therefore, claim that syphilis is one of those diseases which specially affect the glandular system, parts of which are more prone to be influenced than others. For this we can give no explanation.

Not taking into account now the primary adenopathies, which accompany the initial lesion, but only the secondary adenopathies, due exclusively to the constitutional infection, the groups of glands most frequently affected are: 1. Those of the inguinocrural regions; 2. Those of the anterior, lateral and posterior cervical regions; 3. Those of the epitrochlear region. The examination of these glands must not be neglected by the clinician. I ask your attention here principally to the epitrochlear adenopathy, that is, to the swelling of those glands situate at the lower and internal part of the arm, along the internal border of the biceps, a few centimetres above the epitrochlea. It consists generally of a single gland, rarely of two or more, arranged in a series. (I have seen four on each side.)

The epitrochlear gland, which physiologically is sometimes

absent, is usually of the size of a pin's head and, therefore, not perceptible in the normal condition. In syphilis it may become as large as a pea, or even a hen's egg.

The epitrochlear adenopathy is less frequently observed than that of the other regions above mentioned; it begins in the secondary period, often later than the other adenopathies; it undergoes the same changes as the others, including the gummatous evolution. Its examination in every case of syphilis is all the more important as it is less influenced by other morbid principles, which often cause enlargement of the glands in other regions.

Tuberculosis and leprosy can cause, though rarely, swelling of the epitrochlear glands; but when these two infections can be excluded in a special case, the existence of syphilis must be considered.

When these glands are enlarged, it would seem to indicate a more severe degree of infection. I have also observed that the swelling lasts longer than in the other regions, in some cases from twenty-five to thirty-five years from the beginning of the infection, after all swelling had disappeared in the other regions. In case of doubt we should search for these enlargements, as they may help us in the discovery of a hidden or forgotten syphilis.

1. John S., 50 years of age, is a man of robust constitution: has never had malarial fever; has not abused wine or liquors. In 1870, while in the militia, had a chancre and bubo; does not remember having any trouble afterwards. In the year 1897 he was attacked by severe neuralgia in the right hypochondriacal region, which radiated towards the umbilicus and the lumbar region, beginning about 5 p.m. and becoming more intense during the night until 3 a.m., after which the pain became less severe. For six months he had tried different remedies, prescribed by distinguished medical men, without any good result. He came under my care in July, 1897. The objective examination of the abdomen was negative; liver normal, also the alimentary canal. The glands in the inguinal and cervical regions were not perceptible. A large epitrochlear gland was observed on the right side and also one on the left.

The presence of this adenopathy and the nocturnal character of the pains made me think of a syphilis, of which the man had been ignorant. I therefore prescribed hypodermic injections of sublimate. At the seventh injection the neuralgia disappeared. He had twenty injections and then received the iodine treatment until the end of the year. He then stopped all treatment. In December, 1899, the neuralgia recurred with the same characteristics, beginning at 5 p.m., but remaining severe till the early hours of the morning. Under the mercurial

treatment the neuralgia vanished at the seventeenth injection, and he considered himself cured after the thirtieth. Three months later the patient, when seen by me, had no pain: the epitrochlear adenopathy, although diminished, was still present.

Two other cases, almost similar, in which neuralgia characterized an old syphilis, fell under my notice in 1898. In these, too, the only exponent of the latent syphilis was the epitrochlear adenopathy, and in them the therapeutic test confirmed the clinical idea of the nature of the disease.

2. This is a case of long persisting epitrochlear adenopathy in a woman 64 years old, observed in August, 1899. G. C. had a sore at 28 years of age. Now she presents an osteo-periostitis in the diaphysis of the right tibia and a tubercular syphiloderma in the body. Epitrochlear swelling is found on the right arm. In the other regions there is no glandular swelling.

3 P. S., of Riposto in Sicily, 46 years old, was seen by me in December, 1899. He had a sore at 23 years of age. He remembers no other trouble except a right gonorrheal rheumatism. Now he presents a laryngo-stenosis from infiltration of the chord on the left side. He has also large epitrochlear glands on both arms, pointing to the syphilitic nature of the infiltration, which was cured by specific treatment.

It is not necessary to give other cases in order to show the diagnostic value of this epitrochlear adenopathy. In conclusion, we can claim that modern experimental researches have not at all destroyed the semeiological value which clinical observation had assigned to the changes in the lymphatic glandular system in relation to syphilis, and you will therefore give a proper prognostic appreciation to the existence of the adenopathy.

In any case, therefore, you must not raise the hopes of your syphilitic patient, if you observe a considerable swelling of his glands, by making him think that this indicates an active phagocytic process. But you will hasten to use all those therapeutic measures which science places at your disposal in order to avoid the possible serious consequences which the gravity of the infection might bring upon your patient in the future. *****

Society Reports.

TORONTO CLINICAL SOCIETY.

The regular meeting of the Toronto Clinical Society was held in St. George's Hall, Elm St., Toronto, on the evening of the 4th of December, the President, Dr. J. F. W. Ross, in the chair.

Fellows present: W. H. B. Aikins, Ross, J. M. Cotton, A. J. Johnson, R. B. Nevitt, J. O. Orr, C. Trow, K. McIlwraith, W. McCollum, J. Harrington, W. Oldright, F. Fenton, W. H. Pepler, H. J. Hamilton, C. Small, G. Elliott, H. B. Anderson, W. Lehman, A. Primrose, E. E. King, J. Leslie, H. A. Bruce and G. Chambers.

Visitor: Dr. Hooper.

Blastymocosis.

Dr. Graham Chambers presented this patient, a railway engineer, aged fifty years. The present attack began about October 1st of this year (1901). It began as a bluish-red pimple of lower eyelid of the right eye. The eyelids were swollen and there was great difficulty in seeing. Dr. Chambers examined the patient for the first time on the 23rd of November, when the characteristic warty growths were present, the surfaces for the most part being covered with crusts. The lesions were seen to be on the face, about the nose and upper lip, and on the backs of the hands and fingers; and when presented they had the appearance of dark rounded swellings the size of marbles. Dr. Chambers had diagnosed the condition as one of blastymocosis, although up to that time Dr. McKenzie had been unable to detect the fungus. The patient was taking 150 grains of iodide of potash daily and the lesions which were undergoing improvement were kept dusted with iodoform.

Menorrhagia.

Dr. R. B. Nevitt read notes of this case, which had occurred in a woman of thirty-five years of age, married for eight years, but no children. She menstruated first at fifteen years of age and suffered much pain, and at that time she was plunged into cold baths daily. When first seen by Dr. Nevitt fifteen years ago, she was undeveloped, pale and anemic. She was suffering from almost a constant flow, beginning with a rush and gradually diminishing in fifteen to twenty days, and then ceasing, leaving her weak and exhausted, to begin again and pursue the same round. This was going on for two or three years before she was first seen by Dr. Nevitt. At that time he advised rest

with tonics and astringents. She was examined under anesthesia and an infantile uterus found with a long cervix, a pin hole os, exceedingly small and almost impossible to feel it. The pubes were smooth and unprovided with hair,—altogether the genitals of a child. Nothing could be found to account for the normal flow. After curetting the uterus, she slowly improved and was finally married. Dr. Nevitt then lost sight of her for a year or two, when she turned up again and told him that she was troubled in early married life with almost constant flow. Since last June she has about sixteen days in which she has had no flow. Examined about a month ago, and she has developed a little since the last examination. The uterus is still small, but the left pelvis is now occupied with a rounded elastic swelling as large as the fist. All kinds of treatment, by drugs, rest and topical applications, curetment and electricity have been employed without lasting benefit.

Dr. E. E. King in discussing this case referred to the use of stypticin, which he had used in two cases. Both had been treated with other drugs, but they were absolutely useless. With stypticin, he has controlled two very severe hemorrhages.

Dr. Ross stated that he was very much opposed to the operation of hysterectomy in these cases. He has never had to perform it yet in this condition, and he has had some troublesome cases of hemorrhage.

Excision of Elbow.

Dr. William Oldright presented this patient, upon whom he had performed excision of the elbow, the patient having been one of the South African Contingent. The patient had had typhoid fever; blood-poisoning set in in the arm and ankylosis of the elbow resulted. There was also union of the radius and ulna for about three inches. About the 1st of November, Dr. Oldright excised the lower portion of the humerus and took about three-quarters of an inch off the radius and ulna. Dr. Oldright described the operation and exhibited the patient.

A Case of Mushroom Poisoning.—Reported by DR. A. J. HARRINGTON.

This occurred in a married woman of thirty-two years of age. She had eaten a few small pieces of raw mushroom and was seized with great dyspnea. Dr. Harrington gave two hypodermics of atropine; at two-hour intervals, of one-fiftieth of a grain, and the patient was quite well the next morning. (Fully reported in December number of the *Dominion Medical Monthly*.)

Dr. Oldright showed a pathologic specimen of fibro-myoma of the uterus.

Cyst of Kidney—Specimen.

This specimen was shown by the President, Dr. Ross, who also related the history of the case, which occurred in a married woman, forty-two years of age, twenty years married and had three children: no miscarriages. Owing to her feet and legs swelling, she thought she had Bright's disease. She consulted her physician and on examination of the urine, albumin was found. Her only complaint was swelling of the feet and headaches. Her doctor had also stated that there was a growth in her side. She was examined by Dr. Ross, who came to the conclusion, that the mass, from its fixity and situation and contour, was due to disease of the kidney. At this time there was no pus nor albumin in the urine. Dr. Ross stated that he did not rely upon a tympanitic note in the median line as of any value. The question was whether it was due to pus or a simple cyst of the kidney. Operation was made in September, 1901; made an opening on the left side. This opening was made good and large, and the tumor of the kidney was found, a cyst could be made out. The peritoneum was opened forward and the tumor drawn away from the peri-renal fat, and the ureter was tied off. Dr. Ross believes it always wise to bring the ureter out of the wound. The vessels were tied off en masse, and afterwards the artery was tied separately. The ligatures from the artery were left hanging from the wound. The patient left the hospital on the 12th of October, and she is at present in perfect health.

Ectopic Gestation.—By Dr. J. F. W. Ross.

For the fourth time, Dr. Ross has met with ectopic gestation, twice in the same patient. Dr. Ross then gave the history of one case. In 1898, a woman had hemorrhage, lasting for three weeks. On examination a mass was found behind the uterus and a diagnosis of rupture of pregnancy made. Operation was performed and a blood clot found shut off by adhesions. A good recovery was made. In June, 1901, the same patient had indefinite pains and flow of blood from the uterus. On careful examination a very small nodule was found on one side of the uterus. It was not easy to feel it, but it could be distinctly made out and it was separate from the ovary. A delay of two weeks ensued and patient came back at the end of that time for re-examination. The nodule had enlarged to about double the size. There were no other signs of pregnancy present. Operation followed, and Dr. Ross stated that this was the smallest unruptured ectopic gestation he had ever seen. The patient made an uninterrupted recovery.

Double Extra-Uterine Pregnancy in the Same Patient.

Dr. Ross then reported the following case which had come under his care since the one above reported. On examination a

blood clot could be felt breaking down in the pelvis, the mass being chiefly felt on the left side. She was taken ill with sudden, severe fainting while lying in bed. She had a peculiar coloring of the skin and collapsed look. She had very little menstruation in September and October. As soon as this gestation sac was removed, the finger was passed down to the left side and another one was found on that side, a three and a half months' fetus, and the right one was certainly active as well as the left. The peritoneal cavity was washed out rapidly and salt solution had to be given and the legs bandaged. The wound was closed with through and through sutures. At the time of reporting the case, the patient was going on to recovery.

GEORGE ELLIOTT,

Recording Secretary.

TORONTO CLINICAL SOCIETY.

On account of the regular meeting night falling on the night of New Year, the January meeting was held on the evening of the third day. Dr. J. F. W. Ross, the President, occupied the chair.

Dr. Hamilton moved, seconded by Dr. King that the sum of \$25.00 be donated to the Ontario Medical Library Association. Carried.

Loose Cartilages from the Knee Joint.

Dr. George A. Peters showed these specimens and reported one case. The patient in this case was a young man of twenty-two years of age with a good family history. Nine years ago, while playing hockey, he was struck on the knee. He complained of weakness in the joint for two years. He was serving on a training-ship and was then incapacitated. The condition was accompanied by considerable pain. The foreign body could be felt quite readily, though it would disappear under the patella. This had existed now for seven years. It was removed under cocaine anesthesia. The incision was made at the upper aspect of the joint about an inch and a half above the upper border of the patella, cutting through the quadriceps extensor. The little body obtained was cartilaginous on one surface, but the opposite aspect bony.

Case Foreign Body in the Esophagus.

Dr. Peters presented the patient, a young man of about thirty, and the foreign body, a dental plate containing one tooth which

had become dislodged and swallowed while in the act of drinking a cup of tea. Dr. Peters also showed a somewhat larger plate, which had been removed from the esophagus by the late Dr. MacFarlane, the two cases being the only instance of the kind in the Toronto hospitals. In the present case the foreign body had lodged just below the level of the cricoid cartilage and gave the patient great pain at the time and afterwards. Attempts to extract the plate through the mouth failed, so it was decided to employ the X-ray to locate it. With this the plate could be seen, but not the tooth, as the porcelain was permeable to the rays. Operation was then undertaken, assisted by Drs. Baines and Wishart. An incision about three inches long was made on the left side of the middle line corresponding to the anterior margin of the sterno-mastoid muscle. When the finger was passed into the esophagus and in an upward direction, the foreign body was found embedded in the pharyngeal wall. The wound healed kindly.

Dilatation of the Esophagus.

Dr. Peters then reported this case and showed the specimen. It occurred in a young farmer of thirty-five years of age. He had been a healthy, hardy man until thirty years of age. At that time he noticed regurgitation of food and liquids after meals. There had been no difficulty in swallowing before that time. He noticed that the food came back sweet and not sour. During the last year and a half he had lost fifty to sixty pounds. He was placed under the care of Dr. Howitt, of Guelph, who did a gastrostomy. After this he improved for a time to the extent of gaining fifty-three pounds. He began to go down hill again and he then came under the care of Dr. Peters. Dr. Peters operated and made an incision on the left side parallel to the margins of the costal cartilages. With his fingers in the wound and a tube passed down the esophagus he could not feel the tube at all. The stomach was opened and after putting finger in and searching a great deal, he found the esophageal opening. It was to the right of the middle line. The man died very promptly after the operation. Dr. Peters then gave his method of cutting calculi by means of a horse-shoe and plaster of paris and exhibited a calculus, removed by the super-pubic operation, weighing six ounces.

A Case of Peripheral Neuritis Simulating Tabes Dorsalis.

This was reported by Dr. D. Campbell Meyers, who believed that cases of this nature are often diagnosed as cases of tabes dorsalis. The patient's previous history showed that he had always been healthy and had never had any venereal disease. The present illness began in July, 1899, with depression of

spirits, head and headache and failure of sight. There was impaired sensation from the feet to the knees which he compared to that present in a limb which has been asleep. Under treatment in the hospital he did not make very rapid recovery at first for a long time and Dr. Meyer began to fear he had made an error in diagnosis. However, a return of his natural condition set in and he was soon able to leave the hospital, and in September he was able to do everything in connection with his work.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

Carbonate of Creasote in Pneumonia.

In the treatment of pneumonia, Dr. Leonard Weber, of New York (*Med. Rec.*), has presented a report of a number of cases doing remarkably well under the use of the carbonate of creosote; using from fifty to sixty grains daily. The above-mentioned observer remarks: "It may be urged that, pneumonia being a self-limited disease, even bad cases will recover; so they do, as we all know; but then good and uncomplicated cases die in spite of the best care and the so-called symptomatic treatment, because the system does not furnish a sufficiency of serum antitoxins to end the pneumonic process. Unfortunately, we are not in a position to tell in any case of pneumonia whether Nature will be able to do the one thing needful and cure the patient; we must go on, therefore, trying to find a remedy on which we can rely in helping Nature's efforts. These cases, and many others, have shown, I believe, that creosotal is such a remedy, working in a very similar way to the antitoxins furnished by the system."—*The Clinical Review*.

Danger of Lead Poisoning from Use of Pewter Drinking Cups by Children.

Vaxiot describes a case of lead poisoning under his care for some months. The child, of four and a half years, had the blue line on gums, paralysis and constipation. It is recovering under the ordinary treatment, but the interesting fact is the cause.

On questioning the mother, nothing was obtained to throw any light on the subject. No lead soldiers or toys of any kind were found, but a pewter goblet was obtained, which the child always used. This was found to leave a black mark when drawn across white paper, just like lead, and could be scratched with the finger nail. On analysis, tin and antimony were found in quantity, but 75 per cent. was lead.

Tracing up the literature and making enquiries from other sources, he obtained news of other like cases and ends by warning physicians to see that such utensils are not used.—*Gazette des Hôpitaux*.

Persulphate of Soda in Tetanus.

Gelibert gives an account of numerous experiments carried on for the last two years with persulphate of soda injections in tetanus. Dogs were used for subjects, and it was found that injection of poisonous doses of tetanus toxin were antidoted, if followed at once by subcutaneous injection of sodium persulphate. Fresh and pure salt must be used.

Mixed with 10 centigrammes of soda persulph., solution was given to a guinea pig of 500 grn., ten times a fatal dose of tetanus toxin, and no effect was noticed.

The neutralization was not obtained if some minutes elapsed between the large dose of tetanus toxin and the soda solution but the guinea pig lived some time. A dog of 25 kilos, which received 20 c.c. of tetanus toxin, of which 1-100 centimetre killed a guinea pig in three hours, lived and recovered.

Persulphate of soda has an invariably favorable action on the tetanic contractions.

In animals in which the disease develops slowly, the chances of recovery are much better.

Then follow two histories of cases in children, which were treated by injections of persulphate of soda, and who both recovered although the cases were serious.

Ten c.c. of a five per cent. solution were injected three or four times daily, and favorable results noticed early.—*Lyon Medicale*.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES F. W. ROSS, ALBERT A. MACDONALD,
AND K. C. McILWRAITH.

Pregnancy.

If the uterus grows faster than usual during pregnancy, suspect vesicular degeneration of the chorion (hydatid mole).

If the uterus stops growing, or grows more slowly than usual during pregnancy, suspect "missed abortion," (fleshy mole).

If after a threatening of abortion, the breasts soften and their secretion disappears, be sure that you have to deal with "missed abortion."

When you suspect missed abortion, do not interfere unless signs of sepsis appear, or hemorrhage is severe, for it must be remembered that in twin pregnancy one fetus may perish and the other go on to term.

When dealing with the symptoms of abortion, never forget to consider the possibility of ectopic pregnancy.

Abortion should never be induced, however urgent the indication for it, without having a consultation, the result of which should be recorded in writing, signed by both practitioners and preserved by one of them.—*From Fothergills Rules of Obstetric Practice.*

Rupture of the Uterus.

Varnier (*Rev. de Gynéc. et de Chir. Abd.*, September-October, 1901) publishes twenty-three personal observations collected between 1885 and 1901. He divides them into two groups: (I) 1885 to 1897—eleven cases of rupture of the uterus treated from below, that is to say, delivery of the child and placenta by the natural passages, followed by plugging. The appalling result of ten deaths to one recovery is recorded. (II) 1897 to 1901—twelve cases, out of which six were treated from above by an exploratory and reparatory operation on the uterus: three recovered. In six remaining cases death supervened too early to allow of preparations for abdominal section. Varnier, on the above experience, insists that the extent of the rupture and its completeness or incompleteness can never be safely defined by palpation alone; an exploratory operation is, therefore, always needed. When the abdomen is opened, conservative treatment is to be rejected. The laceration of tissues interferes with repair, and, even when the uterine wound cicatrises well, there will be danger of rupture through the scar during a future labor. The scar in this kind of case is different from the scar of the clean-cut wound through healthy tissues after a successful normal Cesarean section. Either Porro's operation should be practised in a case of rupture, or else retroperitoneal hysterectomy with careful suturing of the torn peritoneum as well as of the flaps of the uterine stump. The scar should be kept against the abdominal wall and the vagina plugged. Pinard discussed Varnier's memoir, which was read at a Congress at Nantes in September, 1901. He considered that rupture of the uterus was always grave, whatever the subsequent treatment. In some cases the symptoms are ill-marked, the patient being a little restless and the pulse rapid. Even after rupture there may be no flooding, and the uterine contractions may continue and deliver the child and placenta spontaneously. The mildest-looking cases may end fatally if treated from below only or "expectantly." In short, Pinard insists that when once rupture of the uterus is diagnosed abdominal section is indicated.—*Brit. Amer. Jour.*

Missed Abortion.

Validès (*Rev. Mens. de Gynéc., Obstét., et Pédiat. de Bordeaux*, July, 1901) publishes full clinical notes of missed abortion.

The patient was a multipara aged 37. The fetus died through some undiscovered cause during the third month of pregnancy; it mummified, remaining six months in the amniotic fluid. The uterus tolerated the dead fetus, practically a foreign body, retaining it until exactly nine months after conception. Then flooding occurred, and a few days later delivery was effected artificially. The placenta had continued to develop after the death of the fetus, whilst the cord atrophied, and was at delivery as thin as a knitting-needle. After extraction of the fetus the placenta remained adherent for three days, notwithstanding various attempts to remove it. There was a slight flooding and then fever. Eight grains of quinine were given, and in a few hours the uterus expelled the placenta spontaneously. The patient did well afterwards. The placenta was as large as a man's hand, five inches in diameter, circular, not degenerate, but distinctly fetid.—*Brit. Med. Jour.*

Septicemia.

Puerperal infection, like other wound infection, should be treated not by the administration of drugs, but by prompt surgical means. Loring considers proper surgical treatment, early and thoroughly applied, is most essential to save life and prevent chronic invalidism. By puerperal infection he understands that which occurs in the first four months after delivery. Infection following early abortion is least dangerous, the danger seeming to increase in direct ratio to the period of gestation. Probably in not more than twenty-five per cent. of the cases having rise of temperature after labor, is this due to puerperal infection. If this infection is early determined and has only affected the free surface of the decidua, simple intrauterine irrigation with normal salt solution or boracic acid, two per cent., may effect a cure. Since strong antiseptic solutions destroy the cellular elements and produce subsequent sloughing, they should never be used unless immediately followed by curettage. If, however, the infection has penetrated deeper and has involved the lymphatics, etc., curettage and opening of the cul-de-sac should be resorted to, and the widest possible field of drainage obtained. The technique which Loring deems best is fully described. In his opinion there are few cases of puerperal infection which will not in a few days be permanently cured by this method.—*Amer. Med.*

Eclampsia and the Thyroid Gland.—H. O. NICHOLSON, *Scottish Med. and Surg. Jour.*, June, 1901.

Changes in the Blood and Circulation in Pregnancy.—There is an increase in the volume and a deficiency in solids, thus leading to a lower specific gravity, i.e., decrease in red and

an increase in white corpuscles, water, and fibrin. The amount of toxic products is increased owing to absorption of fetal excretories, also hypertrophy of cardiac muscle, and of the muscular coat of the blood vessels giving rise to vascular tension due to the toxic condition of the blood. In chronic uremia arterio-sclerosis exists, and Dr. W. Russell has shown that the thickening of the arteries is due to an increase in the muscular coat and fibrous hyperplasia of the interna.

The toxemia of Pregnancy and its bearing upon Eclampsia and Coincident Anuria. In every pregnancy a certain amount of toxemia exists, increasing towards the end of pregnancy, though the toxic agent is not always the same, and alarming symptoms may not occur if the kidneys act freely.

Of the nature of the toxins we know nothing, but if, as is probable, the fetus is largely responsible for them, it is impossible to prevent their occurrence; we must look rather to securing elimination by the kidneys. In certain cases there is an intimate relationship between inadequate thyroid function and the current of renal secretion.

The State and Functions of the Thyroid Gland in Pregnancy.—The thyroid gland normally enlarges during pregnancy. Lange met albuminuria in 20 out of 25 cases in which the thyroid did not enlarge. Large doses of thyroïdin were given to pregnant women in whom the thyroid had enlarged, with the effect of reducing its size, and in pregnant women with albuminuria he found it to have distinct diuretic action.

Case of Puerperal Eclampsia Treated by Thyroïd Extract.

W. L., aged 30, III.-para, 5 months. With the first pregnancy had swellings and convulsions; child dead. With the second, convulsions, but was treated by chloral and bromide; child living. In this pregnancy gave up butchers' meat; later on, however, swellings and convulsions occurred; under chloral and bromide sleep was obtained. She was then placed under thyroid treatment, taking a 5-gr. tablet twice daily. All other medication was stopped, but milk diet continued; gradual improvement followed, with reduction in amount of albumen. A full time live male child resulted.

The Relation of the Thyroid Gland to Eclampsia, as seen in its bearing upon the pre-Eclamptic Symptoms—Edema.—Frequently present in pregnancy without albuminuria, generally an early symptom. This edema is of a more solid character than that of ordinary dropsy, more of the myxodematous nature. If it is present to a great extent thyroid inadequacy is indicated, but in the absence of albuminuria and diminished quantity of urine, no symptoms may be present.

Albuminuria.—Allbutt's toxemic theory is a likely one. It accounts for the high-tension pulse, existing without other symptoms. As the toxemia increases albumen appears in the water; this is again followed by scantiness of the urine, convulsions following. Herman criticizes this theory, and says it is incompatible with the onset of eclampsia in a few hours in an apparently healthy subject, and also with the rapid disappearance of symptoms after pregnancy is completed. Diminution of urine, with a decrease in the amount of urea, is a prominent danger signal. High arterial tension, a radial pulse-tracing showing high tension, is an earlier indication of danger. In later pregnancy the higher the tension the less urine is secreted. Headache, restlessness, epigastric pain, vomiting, and unaccustomed diarrhea, all point to an unsafe degree of toxemia. Edmunds states that if the thyroid and parathyroid glands of a dog be removed, probably the first symptom observed is a "fibrillar twitching of the muscles." Similar twitchings are seen in the eclamptic patient.

The Evidence of the Defective Action of the Thyroid Gland may and does produce these Symptoms, culminating in Eclampsia.—Action of iodothylin. Under its action the metabolic processes are greatly increased—*ergo*, bodily waste, chiefly of proteid tissue, is augmented; the quantity of urea excreted is increased; the thyroid gland stores up iodine in organic combination, but it is not to the iodine that its functions can be ascribed. Iodothylin is manufactured continuously, and in certain conditions, as in pregnancy, is accompanied by a hypertrophy of the gland. Fresh thyroid juice has a diuretic effect. Urea is a powerful diuretic. In inadequate thyroid action the destruction of proteids is diminished, less urea is formed; therefore there is a diminished secretion of urine, as found in cases of eclampsia.

The Treatment of Eclampsia and the pre-Eclamptic State by Thyroid Extract.—In the early stage, with high pulse tension, diminished excretion of urine, and no albumen, 5-gr. tablets of thyroid extract may be given two or three times a day. Proteid foods should be forbidden at first, but can afterwards be given cautiously. Iodide of potash has been regarded as a specific for puerperal albuminuria; it probably acts by supplying iodine to the tissues, and is picked out by the thyroid gland and elaborated into iodothylin.

In later stages, when fits are present, or imminent, administration of thyroid by the mouth is not rapid enough; frequent injections of thyroid juice must be used. For the convulsions, morphia is the best remedy, as during its action tissue metabolism is lessened, thus giving time for the thyroid to resume its function. The urea that is thus temporarily locked up in

the system has to be got rid of later on: its elimination can be greatly assisted by employing salicylate of soda. Large saline infusions assist by causing vascular dilatation and diuresis. Thus the special indications for treatment are all fulfilled, that is, lowering of pulse tension, promoting of diuresis, and supplying iodine to the tissues.—*Quarterly Med. Jour.*

PEDIATRICS.

IN CHARGE OF ALLEN BAINES, W. J. GREIG, AND W. B. THISTLE.

Means of Arresting Acute Endocarditis. By RICHARD CATON, M.D. (*Brit. Med. Jour.*, October 12th, 1901).

Summary.—Ordinary rheumatic treatment by the salicylates, and an occasional cholagogue and a light diet. Patient kept strictly in bed for several weeks, clothed in flannels. Any lingering pains dissipated by the use of blisters. Absolute physiological rest, physical and mental, for six weeks, is the first essential requirement. Through the nerve connection between the skin of the thorax and the cardiac ganglia, he attempts to influence a cardiac inflammation by means of a succession of small blisters, each the size of a florin, applied to the chest between the clavicle and the nipple, one blister at a time, and each followed by a small poultice. The third point is the administration of sodium iodide to absorb any exudation that had taken place into the substance of the valve.

Ninety-two cases of acute endocarditis had been treated by this method. Sixty-one of these had a murmur when they came under observation; whether recent or not was not known. Of these, sixty-one left the hospital with apparently sound hearts, while in twenty the signs of valvular disease persisted. In thirty-one cases the bruit and other signs of valvulitis developed during their stay in hospital, and of these twenty-eight left hospital with apparently sound hearts and three with permanent valvular disease.

The treatment must be begun early; the patients must refrain from anything that will put a strain on the heart for several months after recovery. If a second attack of rheumatism occurs the valvular mischief is apt to reappear and is more difficult to remove.

Professor Osler expressed the desirability of knowing the condition of the heart in these sixty-nine cases several years after they left the hospital.

Professor Clifford Allbutt stated that in his experience well-marked physical signs of "post-endocarditis" in a substantial

minority of cases wholly disappeared. This he had frequently verified in the examination of patients who had formerly had endocarditis, and in whom evidence of cardiac injury had disappeared. He emphasized the importance of reducing the blood pressure and also the mass of blood which had to be lifted at each stroke of the heart. This latter might be effected by reducing the amount of fluid taken *per orem*.

Sir William Gardiner spoke of the importance of rest, as complete as possible, as a prophylactic and curative agency in rheumatic endocarditis.

Sir William Broadbent thought that more benefit would follow the use of the salicylates if they were given more freely. To an adult he was in the habit of giving grs. xv every hour for six doses in two successive days. He believed that given in that way, it exercised an important preventive influence in endocarditis.

W. J. G.

Editorials.

FEDERATION OF TRINITY COLLEGE WITH THE UNIVERSITY OF TORONTO.

At a recent meeting held in the University of Trinity College, it was stated by the daily papers of Toronto that "Federation was in the air." We publish in this issue certain references to this question which we have extracted from the report which appeared in the *Daily Globe*, January 15th. The same paper, in commenting in a general way, speaks as follows: "Under the roof of the Trinity of to-day there gathered last night a brilliant, and, in some respects, unique assemblage, in its wide catholicity and hearty friendliness, a most impressive evidence of the healing power of time and the capacity of this country for dismissing into the limbo of the past outworn quarrels and controversies no longer vital. The Presbyterian, the Methodist, and the Baptist educational institutions of Toronto were the guests of the Anglican university; nay, the air was filled with the murmur of the approaching federation of Trinity with that university whose secularization drove the younger university's founders in wrath to their task. From antagonism to goodwill, from division to union; the occasion was symbolical of much."

We are especially pleased to be able to publish the views of the authorities of the University of Toronto, as enunciated by Sir William Meredith, the Chancellor. There was an impression in the minds of many that certain friends of Toronto University were opposed to federation. We think we can say without any doubt that the opponents of federation in University circles are very few. There exists, however, a feeling that the Government of Ontario is anything but generous, or even just, in its treatment of its Provincial University. As it becomes bigger and broader through various affiliations and federations the responsibilities of the Government become increased. The Premier and Minister of Education do much by their public utterances to promote the best interests of the University, but they generally fail sadly as to their duties when the "estimates" have to be considered.

MEMORIAL TO DR. LESSLIE SWEETNAM.

We are pleased to be able to announce that the late Dr. Sweetnam's most intimate friend, Dr. Howard Kelly, of Baltimore, has performed a very graceful act. He asked a representative of the Ontario Medical Library to look through Dr. Sweetnam's large collection of books, and choose all that were not already included in the Ontario list. Dr. N. A. Powell, who performed the pleasant task, found two hundred and seventy-five volumes. Mr. A. T. Watt, the well-known dealer in medical text-books, was asked to name their value. After a careful examination his valuation was something over eleven hundred dollars. Dr. Kelly has purchased these volumes at the price named, and presented them to the Ontario Medical Library, with the understanding that they shall constitute the Sweetnam memorial portion. The many friends of him who has gone will very highly appreciate this considerate and generous act. We may say, at the same time, that it has caused no great surprise among the host of Canadians who have received so much kindness at the hands of Dr. Howard Kelly since he became a member of the Johns Hopkins Hospital staff.

THE CASE OF DR. HARBOTTLE.

It has given much pleasure to notice the very kindly tone of the lay press of this Province in commenting on the case of Dr. Harbottle, who was recently sentenced to imprisonment in the Central Prison for one year for shooting a man named Stuart. So far as we know, every one at all cognizant with all the circumstances, excepting the learned judge, considers that the sentence was a harsh one. As to that we have little to say, as the judgment must be considered just in the eyes of the law, which will not justify such usage of a loaded revolver.

To those who knew Dr. Harbottle in his student days, and have watched his career since he graduated, there is something inexpressibly sad about the whole miserable business. If there ever was an honest, kindly, worthy, inoffensive, and peaceable man, his name was Robert Harbottle. He was always to some extent peculiar or eccentric. His views were not usually

exactly orthodox, but he was never aggressive in asserting them. In fact he was, as a rule, so thoroughly good-natured that his associates seldom or never had cause to quarrel with him. He was well known in Toronto University circles during his undergraduate days. He graduated B.A. in 1864, M.A. in 1865, and M.B. in 1867, with a high standing at all his examinations.

As is well known, the evidence at the trial showed that for years he had been subjected to a contemptible sort of persecution, which was a disgrace to even a community such as that which inhabits Burford. We quite agree with the *Toronto Globe* when it says: "The sentence is, no doubt, just; yet we are inclined to think the circumstances of the crime are so singular, so pitiable almost, that it is a case in which justice may well be tempered with mercy, even more liberally than has been already done." We are glad to know that a petition for clemency towards Dr. Harbottle is now being circulated.

PROVISION FOR THE TREATMENT OF INEBRIATES.

In an interview with the Provincial Secretary on the 5th inst., the Prisoners' Aid Association, accompanied by an influential delegation, asked that the proposed bill for the treatment of inebriates be introduced this session if at all possible, but if not possible they were there to ask that at least some steps be taken by the Government without further delay in promoting the treatment of inebriates either in cottage hospital or in the wards of public hospitals where such accommodation is available. To this end the deputation asked that the sum of \$3,000 be set apart by the Government to be used in this manner, tentatively or experimentally, until the next meeting of the Legislature. The Provincial Secretary replied in effect that as this is the last session of the Legislature before the general elections, the Government could not see its way to the introduction of the proposed bill. The Government, he declared, was in sympathy with the movement, and although the bill would not be brought down this session, he would be glad to recommend to his colleagues that an appropriation be made

this session to be used to a certain extent experimentally during the next twelve months. He said, moreover, that he was very favorably impressed with what he had learned of the work along this line already accomplished by the Prisoners' Aid Association, and that whatever grant would be made for the purpose would doubtless be made in such a manner as to enable this society to continue and extend the work already begun.

Although this falls far short of what was asked for and what was expected, it is at least a step in the right direction, and will in all probability lead to the adoption of the proposed bill in the near future. As this movement has been inaugurated by the Prisoners' Aid Society, the Government could not do better than to entrust the working out of this important problem, at least in its initial stage, to this enterprising and energetic association.

Six or eight months ago the Prisoners' Aid Association commenced the treatment of inebriates in connection with the Working Men's Home on Frederick Street, Toronto, both for the benefit of discharged prisoners and other indigent and homeless men. Up to December 31st last medical treatment was given to sixty-one. Of these, twenty-one are known to be doing well. No permanent improvement resulted in sixteen cases. In sixteen cases some benefit was derived from the treatment, while in seven cases the result was doubtful or not known. During treatment the inmates of the Home are brought under moral and Christian influences and a helping hand is extended in finding employment. In most cases the patients were either single men or married men separated from wife and family through drink, and consequently without home restraining influences. Considering the class of men dealt with and all of the attending circumstances, the Prisoners' Aid Association believe they have reasons for being more than satisfied with the result. We say most decidedly so, and we wish the Association every success in the further prosecution in this new department of work.

That admirable monthly—the *Brooklyn Medical Journal* began its sixteenth volume in a new dress. We regret that its managers should have changed a form so handsome into one so ugly.

TRINITY AND FEDERATION.

At a very interesting function in Trinity College, January 15th, when Mr. Christopher Robinson became Chancellor in the place of Hon. G. W. Allan, deceased, the following references were made to Federation. The new Chancellor said :

It will not be expected of me now, I think, on my entrance to office and on an occasion like this, that I shall speak of the affairs of Trinity. I can only say I believe we have done good work in the last half century, and I see no reason to doubt and every reason for confidence that in the years to come we shall do perhaps even better. Whether we should go on as we have been or whether we should enter into closer relations with our Provincial University, is a matter for the future. That I cannot tell. One thing is quite certain. Trinity must always remember the object for which she was brought into existence, the combination of religious instruction according to the doctrines of the Church of England with secular learning, and, next to that, she shall adhere to the residential system, both in connection with the teaching and for other reasons. These two primary objects must always be safeguarded, and her ability to carry out these purposes must never be interfered with or prejudiced. Subject to these two requirements, I believe myself, speaking now as a general subject entirely, that confederation is desirable. I say so for these reasons: I believe no one, if higher education was now for the first time to be provided in this Province, would advocate our present system. I believe, in the next place, that it is the result not so much of the differences which now prevail as of old controversies, which have long since been settled, and for reasons which I trust and believe have entirely passed away. I think I am beyond a doubt the only person now living who is a graduate of both universities, and I am glad to be able to add to that, that among many of my very best friends, both of those who have gone and those who now remain, I count some of the most distinguished members of the University of Toronto. If in this capacity as being a graduate, interested in both, it may be my lot to do anything to draw them closer together and enable them to go forward in the great work they both have at heart, the advancement of higher education, I can only say it will be to me the greatest possible gratification. I believe that confederation, if it can be brought about, and only if it can be brought about by some arrangement which will be satisfactory and permanent, is a most desirable thing, and will be a gain to both parties.

Mr. E. B. Osler, M.P., said a university existed for two things, to educate and to form character; and he was disposed to regard the latter as the more important. He entered into an exposi-

tion of his ideal of a university, as a great centre which would provide ample means for the teaching of the sciences, with highly-paid professors, the best men that could be got, and around it affiliated colleges, whose especial function, he intimated, would be the moulding of character. Such an institution—which he observed, he thought, should be independent of the Government—would attract the gifts of rich men, without distinction of creed. Continuing, Mr. Osler said that Trinity would not go into any federation unless she went in on equal terms for all. If these terms could be obtained it would be a great advantage to Trinity and to the central university.

Hon. Richard Harcourt, the Minister of Education, said: References had been made to the universities ploughing a lonely furrow. He asked if they could not accomplish more working a double harness, ploughing two furrows at a time and reaping a grander harvest. He asked if they did not feel a sense of loneliness coming over them in the west end of the city. Would it not be well to transplant their lovely building to an equally lovely situation in the Queen's Park? Would it not be possible to maintain every distinctive principle for which they had pleaded there that night, the residence principle, and the principle of religious instruction? In conclusion, he promised on behalf of the authorities of the Provincial University that if Trinity would come in on as fair an agreement as the new Chancellor could draft, she would be received gladly.

Chief Justice Sir William Meredith spoke for Toronto University. He joined in congratulations to Trinity, alike in the completion of her half century and in the election of her Chancellor, to whom he paid a particularly warm tribute. He went on to touch upon the federation question. In some quarters it had been thought that there existed on the part of some persons connected with the University of Toronto a feeling of hostility to federation. He took this opportunity of saying that such an idea was absolutely without foundation: all those in authority in Toronto University were desirous of meeting Trinity if an arrangement could be got satisfactory to both parties, to bring about a federation which would enable the two bodies to unite in promoting the great cause of the higher education of the Province. There were difficulties which must be overcome, but he believed that Trinity's choice of a Chancellor would assist in the solution of those difficulties, which he did not regard as insuperable. He believed an arrangement could be arrived at by which the particular views and the autonomy of Trinity might be preserved. He also referred to an anonymous pamphlet which had been published on the question, saying that its author was not a true friend to either Trinity or Toronto. He alluded to the difficulties in the way, and said

that he would give Trinity one word of advice, to insist upon the Government of Ontario placing the university on a sound financial footing. Upon this point Sir William spoke for a moment, and he concluded by assuring his hearers that whether Trinity went forward alone or came into federation, there would be no rivalry so far as Toronto was concerned, except as to which would turn out men with the highest culture.

Unnecessary Operations.

It cannot be denied that at the present time there is a tendency to perform operations upon cases where, to say the least of it, operative interference is unnecessary. In this way a veritable *cacochtes operandi* grows apace. In no department of surgery is this so prevalent as in that of the nose and throat. A distinguished laryngologist has lately drawn attention to the subject in a lecture on the principles of local treatment in diseases of the upper air passages. He points out that the craze for operation is conspicuous in the case of adenoid vegetations, which came before the notice of the profession only about twenty years ago. Suddenly operation for adenoids became the rage, and every lymphatic nodule in the pharynx was promptly removed. It must be admitted that in a severe case causing obstruction to nasal respiration, operation is not only justifiable but distinctly indicated; but many non-obstructive cases do not necessitate operation, and the adenoids often disappear spontaneously. In the case of adenoids, the fault lies partly with the public, for parents ask each other if their children have been "done," as if it were a matter as necessary as vaccination. With regard to the danger of this excessive operating, in 1896 statistics were published showing that in two years and a quarter eleven deaths were reported after operation for adenoids, most of which were consequent upon the practice of obliging the anesthetist to perform his duties with the patient in the sitting posture. Next to adenoids, perhaps operations on the nose come into the question. No one can object to a nasal spur, or other material obstacle which causes serious obstruction to breathing being removed, but every slight deviation or spur of the nasal septum does not require the saw, nor every puffiness of the turbinate bones the cautery.—*Medical Press and Circular*.

Personals.

Dr. Harry W. Spence, at last accounts, had returned from India and China to London, England.

Dr. Fred. A. Young, of Toronto, and Dr. George McLaren, of Hamilton, are in London, England.

Dr. G. Gow, commenced practice in Windsor, February 1st, in partnership with Dr. P. A. Dewar.

Dr. J. D. Balfour has resigned his position as Superintendent of the Victoria Hospital, London, Ontario.

Dr. Angus McKinnon, formerly of Alvinston, County of Lambton, is now living in Los Angeles, California.

Dr. Frederick P. Drake, of London, Ontario, was married to Miss Daisy Wright, of Port Huron, January 15th.

Dr. Angus McKay, M.P.P., of Ingersoll, is residing in Toronto temporarily, having taken a house on Hayden street for the session.

Dr. A. J. G. Macdougall, of Toronto, and Dr. R. D. Sproat, of Milton, have gone to Bermuda, to act as civil medical attachés to the regiment in charge of the Boer prisoners.

Miss Campbell, masseuse, of College Street, whose extensive practice is rapidly increasing, has returned from Philadelphia, where she has been further perfecting herself in her profession.

Mr. J. W. Flavell has been elected a trustee to the Toronto General Hospital, to fill the vacancy caused by the death of the late Mr. Walter S. Lee. This election gives general satisfaction.

Dr. A. T. Hobbs, formerly of the London Asylum for Insane, has been appointed Superintendent of the "Homewood Retreat," Guelph, in the place of Dr. Stephen Lett, incapacitated through serious illness.

Dr. W. T. Stuart was the victim of an accident in the chemical laboratory of Trinity Medical College on Monday evening, January 13th, when the explosion of a chemical mixture caused an injury to his eyes. We are glad to know that no serious results followed.

Dr. W. H. Drummond, of Montreal, has been again delighting Toronto audiences with his charming habitant sketches. While in Toronto recently he gave one of his lectures in the University of Toronto. He was entertained by the Canadian Club, President Loudon, Professor Mavor, and Dr. N. A. Powell.

We are pleased to announce that Dr. James Thorburn, of Toronto, who was seriously ill for some weeks, is recovering.

Dr. G. H. Burnham has leased the residence of the late Dr. J. E. Graham, 134 Bloor Street East, for a term of five years, and will move about the first of May.

A number of the friends of Sir William Hingston, of Montreal, celebrated his professional jubilee by presenting him with a portrait of himself in oil. He graduated from McGill University in 1851.

Dr. Goldwin Holland (Tor. '99), House Physician, Toronto General Hospital, 1900-1), has recently passed the examination of the Royal College of Physicians, London, England, and is now a Licentiate of that body.

Dr. George McDonagh and J. Milton Cotton, of Toronto, spent the first half of the month of February in New York. Dr. McDonagh was prevented from taking his trip to California on account of an accident (fracture of leg) to his brother Mr. Jno. McDonagh.

Sir James Grant, of Ottawa, delivered a lecture on the "Secret of Long Life," in the chapel of Victoria University, Toronto, under the auspices of the Victoria Women's Residence Association. Dr. W. W. Ogden acted as chairman. Sir James referred chiefly to the prevention of disease, and the maintenance of the body in health by careful sanitation and the exercise of care in the treatment of the physical system.

Obituary.

TERENCE SPARHAM, M.D.

Dr. Sparham, of Brockville, died suddenly January 11th, aged 89. He graduated M.D. in McGill in 1841. He had been in poor health for a long time, and had not been engaged in active practice for some years.

DR. FORTIER.

Dr. Fortier, physician to St. Vincent de Paul Penitentiary, Province of Quebec, died January 10th, aged 69.

Correspondence.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW

DEAR SIR,—The suggestions, or rather deficiencies, on account of which Toronto now suffers, and which Dr. Oille, of this city, has pointed out in the *Mail and Empire*, and which you have commented on in your December number, are indeed timely. The question is one on which the medical teachers should unite, and incidentally Dr. Oille should be commended for his patriotic desire to retain in their own country medical men who, desiring to improve their knowledge, and forced to avail themselves of the privileges and advantages to be found in a foreign country and not in their own. It is a generally recognized fact, and one in which all Canadians should feel the deepest pride, that the facilities afforded to undergraduates here are rapidly approaching the position of second to none, and there would be peculiar reasons which would drive a young man to the States to take his undergraduate course in medicine; and may the day soon come when it will be an unusual and unnecessary thing for a Canadian graduate to seek foreign fields for more advanced study. It was objected some months ago that the material was fully used during the regular winter session, and at present there was little available for summer or other work. This may be true to a certain extent, but there must always be plenty of bacteriological material, which is probably the most desired, and most urgent need of the older graduates to-day. The combined hospitals of Toronto surely afford material for medical and surgical instruction during the off months if it cannot be obtained in any one alone. I feel satisfied that if the teachers in Toronto felt that the work of a post graduate course in Toronto would be appreciated and backed up by the Ontario graduates, they would find a way out of any difficulty which may seem to be present now. I trust, therefore, that the profession will take up the question raised by Dr. Oille, and let our teachers know the want is felt and their efforts in the direction of filling the want would be appreciated. In conclusion, I feel that Dr. Oille should not be blamed for taking such a question to the lay press, for it is one which the laity themselves might very well urge, from the standpoint of patriotism and the public good of Toronto, nor did Dr. Oille write as a graduate of Toronto University. His only desire was to arouse the attention of Toronto teachers as well as the outside profession, to the question, and show that a combination of teaching faculties would be necessary at first; he thus wrote as a graduate, knowing the need and hoping to overcome that need. My belief is that it will be if the outside profession will endorse Dr. Oille in his disinterested endeavor as they should.

W. H. MERRITT.

ST. CATHARINES, January, 1902.

Book Reviews.

Bacteriology and Surgical Technique for Nurses. By the late EMILY M. A. STONEY, Superintendent of Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. 190 pages. Illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Price, \$1.25 net. Toronto: J. A. Carveth & Co., Canadian Agents.

This is an admirable little book for the purpose for which it was written. The first sixty pages are devoted to a general statement of a history of bacteriology, bacteria as the cause of disease; the theory of antitoxins, antiseptics and disinfectants and deodorants. Then follows the practical portion of the work, which deals with such topics as the care of the operating room, the methods of sterilization, and the care of instruments. There is a special chapter on gynecological examinations and operations, and there is an excellent one on operations in private practice. The directions regarding anesthesia are excellent, and nothing is to be desired in the description of surgical dressings. The preparation of the patient is carefully given.

A Manual of Syphilis and the Venereal Diseases. By JAMES NEVINS HYDE, A.M., M.D., of Chicago, and FRANK HUGH MONTGOMERY, M.D., of Chicago. Second edition, revised and enlarged, with fifty-eight illustrations in the text and nineteen full-page lithographic plates. Philadelphia and London: W. B. Saunders & Co., 1901. Price, \$4 net. Toronto: J. A. Carveth & Co., Canadian Agents.

We believe that no more important work on the subject than the one under consideration has been issued from the medical press during the current year. This is the second edition of the work, and a large proportion of the profession are already cognizant of its practical value. It is a plain, practical and up-to-date manual, containing just the kind of information that physicians need to successfully cope with a troublesome class of diseases.

A chapter on Syphilis in Relation to the Family and Society is full of sound, conservative counsel. The same may be said of the remarks on Hypochondriasis, portions of which at least should be published in parallel columns with the quack advertisements found in nearly every city newspaper and cross-roads weekly. Acute and chronic Urethritis, with their complications and effects, are all admirably presented.

Like most American and English writers, the authors believe that prophylactic measures in connection with gonorrhea are quite untrustworthy—that the only successful prophylaxis is clean living. Abortive medicines are usually either failures or positively harmful. The value of the work has been increased by the introduction of a number of tables on differential diagnosis.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, M.D., LL.D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Fifth edition, thoroughly revised. Pages viii-1143. Size $9\frac{1}{4} \times 6\frac{1}{4}$ inches. Extra cloth, \$5 net; sheep, \$5.75 net, delivered. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

For a long time this work has been a favorite, and the fact that a fifth edition has been called for shows that it has not lost any friends. It stands right up amongst the best of the books on its subjects—complete, concise and to the point. It is based on the latest B. P. and U. S. P., and each purchaser should look up the drugs used most often, as there are some important changes, notably in *Nux Vomica* and similar drugs, increased exactness of content and greater strength with smaller dosage. We are sorry that the author has not said more about the glycerophosphates and one or two more of the newer and better preparations. The section on treatment other than by drugs and some remarks on general considerations, are alone worth buying the book for, and on the whole we like it very much. Students, especially, should find it very useful.

The Principles and Practice of Medicine: designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D., Professor of Medicine in the Johns-Hopkins University, and Physician-in-Chief to the Johns-Hopkins Hospital, Baltimore. Fourth edition. New York: D. Appleton & Co., 1901.

Osler's Practice has become, by force of merit, the standard work on the practice of medicine on this continent. To review it is unnecessary, but to give an idea of the changes made for this fourth edition it is only necessary to quote in part from the author's preface. The article on typhoid has been in great part rewritten, yet we cannot agree with his ideas in the matter of "the bath," which in practice we find distressing to the patient and rarely necessary in the treatment of this disease. The subject of malaria has been revised, with important new matter on etiology added. Concerning pneumonia, many new paragraphs have been added. On smallpox, cerebro-spinal fever, rheumatic fever and many others of the acute infectious, new points are added on diagnoses and treatment. Much new matter has been incorporated on gout and diabetes. The sections on obesity and arthritis deformans have been changed. Practically new articles, in whole or in part, are those on acute tuberculosis, diseases of the pancreas, splenic anemia, arsenical poisoning, herpes zoster, adiposis dolorosa, fibrinous bronchitis,

albumenuria, oxaluria, Ménier's disease, aphasia, combined sclerosis of the cord, neurasthenia gravis, congenital aneurism, surgical treatment of aneurism, and scurvy. New work by Councilman has been added on diphtheria, also by author on dysentery, yellow fever, the plague, pernicious anemia, and leukemia.

A Manual of the Practice of Medicine. By GEORGE ROE LOCKWOOD, M.D., Professor of Practice in the Woman's Medical College of the New York Infirmary. Second edition, revised and enlarged. Octavo volume of 847 pages, with 79 illustrations and 20 full-page plates. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$4 net. Toronto: J. A. Carveth & Co., Canadian Agents.

This work presents the essential facts and principles of the practice of medicine in a concise and available form. The entire book has been subjected to a thorough revision. Among the new sections may be mentioned Bubonic Plague, Gastrop-tosis, and Reichmann's Disease. The sections on Malaria and Diseases of the Digestive System have been largely rewritten. The descriptions of diseases and the treatment given are terse and clear, and the work gives in a most concise manner the points essential to treatment usually enumerated in the most elaborate works. In the arrangement of the subject matter the classification of Osler has been adopted with but a few unimportant modifications. The book is well suited for the needs of both the medical student and the general practitioner.

Studies in the Psychology of Sex. Sexual Inversion. By HAVELOCK ELLIS, L.S.A. (England); Fellow of the Medico-legal Society of New York and the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; general editor of the Contemporary Science series since 1899. The "Studies in the Psychology of Sex" will probably be completed in five volumes. "Sexual Inversion" is second volume in the series. Pages xi-272. Size, 8 $\frac{1}{2}$ x 5 $\frac{1}{4}$ inches. Extra cloth, \$2 net, delivered. Sold only to physicians, lawyers, advanced teachers, and scientists. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914 16 Cherry Street.

This may seem to some a nasty topic. Someone has to take it up, however, and the author is to be praised for his fearless work. It is a something not often recognized, understood, or sympathized with by the practitioner. This is due, we think, to the fact that there is a true congenital invert type is lost sight of, and only the class in which the habit is acquired thought of. It is commoner in this country than most believe, but less so than on the continent; but unless the subject is discussed more than it has been and the discussion leads to methods of prevention, we will soon be no better than anybody else as far as having our attention forced on these things goes. We are surprised that the author does not lay more stress on teaching the young properly regarding sexual matters. One

true invert can corrupt and ruin for life many who could never be even approached if they understood these things as they should. While we do not agree entirely with all the author says, we advise our readers to get the series and see for themselves what he has to say on a subject which, unless something is done, will soon take its stand in the public view alongside of that other, and seemingly growing, social evil.

A Practical Treatise on Diseases of the Skin. By JOHN V. SHOEMAKER, M.D., LL.D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital of Philadelphia, etc., etc. Fourth edition, revised and enlarged, with chromogravure plates and other illustrations. New York : D. Appleton & Co., 1901.

The fourth edition of this popular and accurate work is now issued by Appleton & Co., of New York. This edition has been revised and modified in correspondence to the advances of the last few years in the sphere of dermatology. Special attention has been given to the influence of parasites in exciting cutaneous disorders. This work is well divided according to the latest nomenclature, and is in all respects a standard and up-to-date volume. The author knows whereof he speaks, and he speaks as one having authority. We know of no better work on "skin diseases."

On the Cure of the Morphia Habit without Suffering. By OSCAR JENNINGS, M.D. (Paris), M.R.C.S. (Eng.): Fellow of the Royal Medico-Chirurgical Society. Second edition, revised and enlarged. London : Ballière, Tyndal & Cox, 8 Henrietta Street, Strand, 1901. Pages xii-210. Price 3s. 6d.

Those who have the first edition will have all that this one contains, except his defence of his claim to priority of discovery and application of this method of treating the habit. Those who have not the first edition may learn something of value by securing this monograph. Leaving out his defence, which, by the way, is a strong one, the book contains many points which are very useful and practical. One thing we like is his honesty in saying that there are incurable cases, and others in which it would be certain death to withdraw the drug where it is being used in certain painful affections.

The Journal of Obstetrics and Gynecology of the British Empire. Edited by Mr. ALBAN DORAN, with the aid in special departments of Drs. BERRY HART, F. W. KIDD and W. J. SINCLAIR, with whom are associated an editorial committee of the Obstetricians and Gynecologists of England, Scotland and Ireland. London : Ballière, Tyndal & Cox, 8 Henrietta Street, Covent Garden, W.C. Price, 2s. 6d. net. Annual subscription, 25s., post free.

The aim of the promoters of this new medical journal, as stated in the introductory chapter of the first issue, is to make the publication a complete and impartial record of British

obstetrical and gynecological practice, and a summary of contemporary thought and achievement in obstetrics and gynecology throughout the world. Special prominence will be given to original essays by experienced workers in the United Kingdom and in the British Dominions beyond the seas. In addition to such original matter, a considerable portion of each number will be set aside for abstracts of the writings of American and foreign authorities.

This number contains original communications by Drs. Cullingworth, Horrocks, Berry Hart, Sinclair, Murdoch Cameron and Arnold Lea, on the following subjects: Uterine Fibromyomata, Contraction and Retraction, Obstetrics of the Twentieth Century, Tubal Pregnancy, Fetation in a Bicornute Uterus, Anesthesia by Subarachnoid Injections of Cocaine; Review of Current Literature on Obstetrics and Gynecology; Transactions of Obstetrical and Gynecological Societies of London and Glasgow; and Reviews of Recent Books. There are altogether 128 full-sized pages. In a whole year the volume, or volumes, would contain nearly two and a half times as much material as Playfair's *Midwifery*, or about twice as much as in Jewet's *Obstetrics by American Authors*. The following are the Canadian collaborators: Drs. Chalmers Cameron, William Gardner and F. A. L. Lockhart, of Montreal; Dr. Adolphe Lamarche, of Quebec; and Drs. Jas. F. W. Ross, Algernon Temple and Adam Wright, of Toronto. We are much pleased with the January number. If it is a fair specimen of what will follow, we can assure our readers that the editors and publishers are going to produce a great journal—the best of its kind, we think, in the world.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and FREDERICK PETERSON, M.D., Chief of Clinic, Department of Nervous and Mental Diseases, and Clinical Lecturer on Psychiatry, College of Physicians and Surgeons, New York. *Third Edition, Revised and enlarged.* Handsome octavo volume of 870 pages, with 322 illustrations. Philadelphia and London: W. B. SAUNDERS & Co., 1901. Cloth, \$5.00 net. Toronto: J. A. Carveth & Co.

This work has met with a most favorable reception from the profession at large, two editions having been exhausted in as many years. It fills a distinct want in medical literature, and is unique in that it furnishes in one volume practical treatises on the two great subjects of Neurology and Psychiatry.

In this edition the book has been thoroughly revised in every part, both by additions to the subject matter and by rearrangement wherever necessary, to make it more acceptable to the practitioner and the student. Several sections have been

entirely rewritten, and there have been added a number of new illustrations, an increased amount of tabular matter, and a series of diagrams that have proved of assistance in the solution of diagnostic problems.

It would be impossible to review *in extenso* so large and complete a work. The sections dealing with the diagnosis of nervous diseases are very well written. It covers both nervous and mental diseases. Under the latter, a very valuable section is the one dealing with etiology. The illustrations and type are good. The authors and publishers are to be congratulated upon the efforts of their labors.

A Brief Manual of Prescription-Writing in Latin or English, for the use of Physicians, Pharmacists, and Medical and Pharmacal Students. By M. L. NEFF, A.M., M.D., Cedar Rapids, Ia. Pages v-152. Size, 8 x 5 $\frac{1}{4}$ inches. Extra cloth, 75 cents, net, delivered. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

The notes for this little booklet are the outgrowth of the author's experience in teaching medical students. The author wisely disclaims any attempt to teach the latin language. The notes given are purely experience, and adapted to the fragmentary use of the language that is made use of in writing prescriptions.

Atlas of the Nervous System, Including an Epitome of the Anatomy, Pathology and Treatment.—By DR. CHRISTFIED JAKOB, with a preface by PROF. AD. V. STRUMPELL. Edited by Edward D. Fisher, M.D., 112 colored lithographic Figures, and 139 other illustrations. Philadelphia and London: W. B. Saunders & Co. Toronto: J. A. Carveth & Co. Price \$3.50.

This volume is one of the series of Medical Hand-Atlases, published by Messrs. Saunders & Co. It is a very handsome book. The illustrations are well done. There is an excellent, though condensed, resume of the anatomy, pathology and treatment of the nervous system. A number of the illustrations are on the superposition method, and afford a very clear idea of the arrangement of the parts. We can recommend the volume to those who desire to avail themselves of the means of acquiring an accurate knowledge of the nervous system.

An International System of Electro Therapeutics for Students, General Practitioners and Specialists, by numerous associated authors. Edited by HORATIO R. BIGELOW, M.D., etc., etc. Second edition. Thoroughly revised and brought up-to-date with several entirely new departments, embodying the most recent developments of the science. Edited by G. Belton Massey, M.D., etc.

The above announcement on the front page of this work shows clearly what is to be found in its contents. The work is clearly divided into many headings, beginning with an

elaborate article on the "History of the Rise of Electricity as a Therapeutic Agent," and on electricity itself, from the pen of the well-known laryngologist, Dr. J. Mount Bleyer, of New York. "Electro-Physiology," by H. P. Brubacker, O.M., M.D., of Jefferson College, Philadelphia. "The Galvanic Current," by G. Belton Massey, Philadelphia, and other kindred articles by many authors. Section C takes in Gynecology and Obstetrics from the electro-therapeutic view, and many well-known gynecologists have contributed exhaustive articles on this interesting and somewhat new addenda to our armamentarium therapeutics. Section D deals with the Nervous System. Section E, Disorders of the Abdominal and Thoracic Viscera. Section F, Diseases of Childhood. Section G, Electro Surgery, including Ophthalmology, diseases of Nose and Throat, Aneurism, Strictures, Cancer, Facial Blemishes, Diseases of the Skin.

The compilation of this work shows a great amount of care and a vast amount of labor. It is put in a clear, convincing manner, and by men all of whom are well and favorably known to the medical world. Any medical man purchasing the work will be well repaid for the outlay. The book itself is well got up, the illustrations being excellent, and a great aid to the reader. The names of the various authors is a sufficient guarantee for the value of the work. The work is published by F. A. Davis Company, Philadelphia, and reflects the greatest credit on that well-known firm.

A Text Book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Fifth edition, thoroughly revised. One handsome octavo volume of 1297 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$5.50 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto, Ont.

The success of this work as a text-book and as a practical guide for physicians has been truly phenomenal. Five large editions have been called for in less than four years. The rapid exhaustion of each edition has made it possible to keep the book absolutely abreast of the times, so that Dr. Anders' book has become justly celebrated as a thoroughly up-to-date work on the practice of medicine. In this edition the most thorough and extensive changes have been made in connection with the large group of infectious diseases. No pains have been spared to present modern views, derived from clinical experience and critical bedside observation, as well as newly-discovered scientific facts. Especial care has been bestowed upon the etiology, including bacteriology, inductive diagnosis, and the details of treatment, in the belief that these phases of the subjects treated form the ground-work for an intelligent

and successful pursuit of the science and art of medicine. The etiology and mode of transmission of malaria and of yellow fever have been almost entirely rewritten. Certain affections of growing importance, as diphtheretic dysentery and parasitic hemoptysis, have been recast and more fully discussed. A few new articles have been introduced: for example, fatty infiltration of the heart, streptococcus pneumonia, and acute diffuse interstitial nephritis. Among leading infections that have received careful and thorough revision are typhoid fever, malaria, cerebro-spinal meningitis, lobar pneumonia, influenza, variola, chronic tuberculosis and hydrophobia. The entire work, moreover, has been carefully scrutinized and brought into harmony with the most recent developments in practical medicine.

The American Illustrated Medical Dictionary. For Practitioners and Students. A complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, and the kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables of arteries, muscles, nerves, veins, etc.: of bacilli bacteria, micrococci, streptococci; eponymic tables of diseases, operations, signs and symptoms, stains, tests, methods of treatment, etc., etc. By W. A. NEWMAN DORLAND, A. M., M. D., editor of the "American Pocket Medical Dictionary." Second edition, revised. Handsome large octavo, nearly 800 pages, bound in full flexible leather. Philadelphia and London: W. B. Saunders & Co., 1901. Price, \$4.50 net. Canadian Agents: J. A. Carveth & Co., Toronto, Ont.

The object of the author has been to furnish in a volume of convenient size an up-to-date dictionary, sufficiently full for the requirements of all classes of medical men, or, in other words, to give a maximum of matter in a minimum of space and at the lowest possible cost. This object has been secured by the use of a large page, thin Bible paper, and a flexible leather binding. A large first edition was issued in October, 1900. In the second edition the book has been carefully revised. The author has also added upward of one hundred important new terms that have appeared in medical literature during the past few months. Among them appear "Anopheles," "Cryoscopy," "Johimbin," "Hemolysin," "Hedonal," "Sacrecotomy," etc., words that have recently come prominently before the profession, and which of course are not to be found in any other dictionary. Other valuable features of the book are to be found in the complete and satisfactory definitions, the etymological references in the original languages, and the clear method of indicating the pronunciation. There are over one hundred new tables, and the illustrations add greatly to the usefulness of the book. In the preface the author avows his intention of making the work represent as fully as possible the live literature of the medical sciences by keeping it in

all respects thoroughly up to date. We are glad to express a decided opinion that this is in all respects an admirable dictionary.

Atlas and Epitome of Gynecology. By DR. OSKAR SCHEFFER, Privatdocent of Obstetrics and Gynecology in the University of Heidelberg. Authorized translation from the second revised and enlarged German Edition. Edited by Richard C. Norris, A.M., M.D. With 207 colored illustrations in 90 plates and 62 illustrations in the text. Philadelphia: W. B. Saunders & Co. Toronto: J. A. Carveth & Co., Canadian agents.

The illustrations in this book are superior to any we have seen in any other work on gynecology of moderate size (*i.e.*, excluding such books as Howard Kelly's), and add very materially to its value as an aid to students and practitioners. In other respects the book is an excellent one, occupying a position midway between the *quiz compend* and the large works on gynecology. We notice with pleasure the author's conservatism, although it may be considered rather slow by some of our ardent and progressive modern gynecologists.

Jonathan Hutchinson, F.R.S., General Secretary of the New Sydenham Society, has requested Messrs. P. Blakiston's Son & Co., of Philadelphia, the American agents of the Society, to announce the publication of "An Atlas of Clinical Medicine, Surgery and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the Society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. The list of publications numbers upwards of one hundred and seventy volumes of the greatest scientific value. An effort is now being made to increase the membership, in order to extend its work.

Heredity of Chronic Nephritis.

Pel (*Zeitschrift f. klin. Med.*) describes a family in which during three generations eighteen cases of chronic nephritis were observed. Nine of these cases were males and nine females. The males inherited the disease from the father, the females from the mother. It is possible that in all these cases there was a diminished resistance of the kidneys to all injurious conditions. One of the cases, a child, contracted an acute parenchymatous nephritis following a very mild attack of varicella, thereby showing a marked susceptibility.—*Maryland Med. Journal.*

Selections.

SURGICAL HINTS.

In cold weather, when making use of chloride of ethyl for local anesthesia, it is well to warm the part beforehand. This will secure better evaporation and more complete anesthesia. It also prevents waste, as a much smaller amount of the chloride of ethyl will produce the required degree of anesthesia.

Never use sutures larger than are necessary to properly maintain approximation, or ligatures larger than will suffice to hold safely the vessels or pedicles they are to constrict. Even when absorbable they are foreign bodies.

In a wound occurring in some place where no aseptic dressings can be procured, it is better to leave it exposed to the external air than cover it with probably infected substances. A protective crust or scab will thus rapidly be formed.

A surgeon who keeps on breaking small ligatures when tying minor blood vessels gives evidence of the fact that he is using an altogether unnecessary amount of force, at least ninety-nine times out of one hundred.

In a case of a wound of the skull in which there is evidence of depression, even to the slightest extent, and if the means of doing aseptic surgery are at hand, conservative surgery is out of place. It is now a cardinal rule that depressed bone in the skull must be elevated or removed.

In erysipelas of the face of uncertain origin, always examine the nasal cavity. The starting-point of the infection is sometimes to be found in small purulent collections confined beneath crusts, or in pustules situated around the hairs at the meatus. —*International Journal of Surgery.*

In very bad cases of intestinal obstruction, in which for any reason operation has been very long delayed, we may feel like giving the patient the benefit of the only chance that remains to him. These patients are practically unable to feel pain, and the administration of a general anesthetic to them is exceedingly dangerous. Use local anesthesia, rapidly open the abdomen, draw out the nearest coil of distended intestine, stitch it rapidly to the external wound, and open into the gut at once. Use hot saline injections by the rectum and intra-venously. If we can thus tide the patient over a couple of days we may later on deal with the obstruction itself —*International Journal of Surgery.*

The Use of Old Antitoxin.

As is well known, the various manufacturers of antidiphtheritic serum are accustomed to have it returned to them by the retail druggist or physician after it has been in their possession for several months in order that the stock may be replenished with freshly made material. This is done because it is a well known fact that the serum is apt to diminish in its antitoxic power with the passing of time, and in order that the full antitoxic value may always be received by the patient. With the approved methods which have been introduced for the manufacture and preservation of this product, it has been found that deterioration takes place less rapidly than in the serums which were first prepared. The most careful manufacturers see to it that the hermetically sealed tubes in which the serum is placed contain a greater number of antitoxic units than is put upon the label, allowing, in this way, for a slight deterioration to take place without in any way decreasing the value of the product: or, in other words, it is possible for the serum to lose somewhat in its antitoxic power, and yet be as strong as the label states it to be.

While therefore it is advisable for physicians to employ fresh serum whenever possible, it is extremely inadvisable for a physician to fail to give the antitoxin which may be in his possession simply because it does not bear a recent date. On the contrary, such serums are very frequently possessed of a great deal of power, and should always be used at least until a fresh supply can be obtained. This fact is not only recognized in this country by those who have had the most experience in the matter, but it is interesting to note that the French Minister of the Interior has given directions that physicians shall not wait for the receipt of a fresh supply, but shall immediately begin the administration of that which they have on hand rather than lose precious time; for as we all know, the value of antitoxic serum is in direct ratio to the promptness of its employment after the disease is recognized. Even if the serum has been kept for as long a period as a year, and a slight sediment is formed, this does not in any way indicate that there has been any material alteration in its value. When it is considered that the administration of full doses of antitoxin on the first day the false membrane appears, decreases the mortality to as low a point as two per cent., and on the second day to six per cent., the importance of administering whatever may be at hand is emphasized. This is the more important when we recall that the death-rate is thirty per cent. when the injection is made as late as the third day, and fifty per cent. when it is made as late as the fourth day.—*Therapeutic Gazette*.

The Viability of the Bacillus Pestis.

Rosenau (*Bull. of Hyg. Lab. Marine Hospital Service*, 1901), as a result of an elaborate series of experiments, concludes, first, that the bacillus pestis is not a frail organism, but possesses considerable viability. It remains alive in the cold under 19° C. for a long time, but dies quickly, especially when dried, at the body temperature. Moisture favors the life of the bacillus, and it usually dies in a few days when dried, even in the presence of albuminous matter, provided the temperature is above 30° C. It may remain alive and virulent when dry for months when the temperature is under 19° C. Direct sunlight associated with a temperature over 30° C. kills the organism within a few hours, but the action is not very penetrative. The virulence of the organism is often lost before its destruction. It is unlikely that new, dry merchandise, or clothing or bedding can harbor the infection for a long time, and the bacillus lives for months even, dry, when in an albuminous medium at temperatures below 20° C. It lives for a long time in milk, cheese and butter, but generally dies quickly on the surface of fruits and prepared foods. Although plague is not a water-borne disease, the organism may live a long time in water. As the bacillus does not live long on paper, first-class mail is not apt to carry the infection. The cooler the climate, the greater the danger of conveying the infection on fomites, and so, more extensive disinfection is required in temperate than in tropical regions. Surface disinfection is secured by sulphur fumigation and formaldehyd gas in the usual strengths—the former being preferred in places infected with vermin, is formaldehyd gas may fail to kill the higher forms of animal life. The temperature of 70° C. continued for a short time is invariably fatal to the plague bacillus. The ordinary antiseptics are all efficacious in their usual strength for non-spore-bearing organisms.—*International Medical Magazine*.

How to Make a Diagnosis.

The ability to make a correct diagnosis is not entirely the result of native genius. As Cicero said about the making of a poet, the natural ability is of great importance, but the man of surpassing merit is he who joins to his native talent the power that comes from education. The man of quick perception, of logical mind, and with acute special senses, may make a rapid and apparently intuitive diagnosis. But in its ultimate analysis such a diagnosis is the result of study of books, and of experience at the bedside and in the laboratory; it implies weighing of probabilities and close logical reasoning; it is far from intuitive. This is the hard lesson to teach the young man

who becomes discouraged as he ploddingly works over his case and still is unable to name malady, or grows careless through his effort to work as rapidly as his preceptor or his superior. But practice in this line brings improvement as it does to the pianist, who soon reads and plays at sight music that was at first entirely beyond his grasp.

Many diagnoses are made with positiveness. When technique is faultless, one may at times be able to pronounce a case tuberculous, or to declare the nature of a fragment of tumor, or the presence of fluid is proven by aspiration, or a fracture recognized by crepitus, etc. Yet, while the learned and trained physician is the most positive in his diagnosis when he is sure of his ground, no one is more cautious and guarded when positive signs are lacking, and no one more candid in saying, "I do not know." It takes some men many years before they attain that mental attitude commanding the wide horizon, and giving them the clear vision so that they can look about and declare openly, "I do not know." Some men never reach this high plane: others lack the courage to confess what seems to be ignorance. But the intelligent layman, who has tried his physician and not found him wanting, is willing to accept this confession of limitation of human power; he recognizes the feebleness of human insight into the workings of Nature, and he waits patiently until the physician is ready to announce his decision. The physician who is honest in his diagnosis has nothing to retract; he is not obliged to "hedge."

The physician who has had impressed upon him early the importance of diagnosis, who realizes that diagnostic ability is not a gift, but an acquirement, and who gives his opinion not prematurely and guessingly, but conscientiously and after full deliberation, may not be brilliant, and may add little to the world's store of knowledge, but he goes about doing good; he commands the respect of his patients and his colleagues, and is free from the stings of conscience that come through mistakes committed through haste and carelessness.—*Indian Med. Record.*

Senile Pruritus.

In this condition—not at all infrequent, and very troublesome—the skin is usually dry and atrophic. Under such circumstances small doses of pilocarpine, one-twentieth of a grain two or three times daily, will be found beneficial. Very often nothing else will be required, sufficient comfort being afforded by this remedy alone. It is often well, however, to employ a liniment of a solution of menthol and salicylic acid in lanolin and olive oil, varying the proportions according to the demands of the case.—*The Clinical Review.*

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Original Communications.

A CASE OF INTUSSUSCEPTION IN A CHILD: OPERATION—RECOVERY.

By A. PRIMROSE, M.B., C.M., EDIN., M.R.C.S., ENG.

Professor of Anatomy and Associate Professor of Clinical Surgery in the University of Toronto;
Surgeon to the Hospital for Sick Children, Toronto.

There seems to be a consensus of opinion at the present time that in cases of intussusception early operation holds out the greatest prospect of recovery to the patient. The further proposition may be made that operation should take the form of laparotomy rather than attempt any such measures of doubtful utility as inflation per rectum with air or fluid. The following case illustrates the advantages of abdominal section:

F. B., aged $3\frac{1}{2}$ years, was admitted into the Hospital for Sick Children, Toronto, on Monday, November 18th, 1901, late in the afternoon. The patient was admitted under Dr. Thistle, who asked me, as his surgical colleague, to operate. On November 15th (three days before admission) she first complained of trouble. She suffered from pain in the abdomen on the left side, and there was obstruction of the bowels, the administration of purgatives being ineffectual to relieve it. The pain was intermittent in character and varied in intensity. There was persistent vomiting, and she passed from time to time considerable quantities of bloody mucus. On admission to the hospital her face was flushed, but she did not look very ill save that she exhibited a remarkable indifference to what was going on about her, and she appeared in a condition of lethargy. The tongue was coated, her temperature was 100, her pulse 132, and respirations 28 per minute. The abdomen was perhaps slightly distended, but it was quite flaccid and there was a remarkable absence of tenderness on palpation.

A distinct tumor could be felt on palpating the abdomen in the left lumbar region. It extended upwards into the left hypochondriac region and across to the upper part of the umbilical region. This tumor was sausage-shaped, but curved so as to form a segment of a circle with the concavity looking downwards and inwards towards the umbilicus. On digital examination of the rectum nothing abnormal was detected, but on removal of the finger it was found to be covered with a considerable quantity of bloody mucus: there was no fecal matter, however. The diagnosis of intussusception was made and operation was undertaken for relief. Chloroform was administered at 8 p.m. Under the anæsthetic the tumor could be very distinctly marked out: it was shaped like an omega loop and was very hard. An incision was made in the middle line below the umbilicus, and was enlarged upwards through that structure in order to reach the tumor. An attempt was made to deliver the tumor mass upon the anterior abdominal wall, but there was considerable difficulty in accomplishing this, the tumor being fixed firmly by the ligamentum suspensorium leinis. It was found to be an intussusception about 10 inches long and $2\frac{1}{2}$ inches in diameter. The intussusceptum proved to be the transverse colon which had become invaginated into the splenic flexure of the colon. The point of entry of the intussusceptum was far back in the left hypochondriac region, and was fixed there by the ligament already mentioned. It became necessary to enlarge the incision well up to the ensiform cartilage before we could deliver the whole mass on to the anterior abdominal wall. An attempt was now made by slight traction to pull out the intussusceptum, pulling upon the transverse colon above the tumor, but this was absolutely ineffective. I then asked Dr. Thistle, who assisted me, to continue this traction slightly whilst I manipulated the tumor mass. I found, contrary to all teaching on the subject, that pressure immediately over the apex of the intussusceptum was most effective. By pressure exerted by my right hand directly over the apex of the intussusceptum whilst firmly supporting the tumor with my left hand, the invaginated bowel was pressed out of the intussusciens. Some adhesions existed near the apex of the intussusceptum, but none existed elsewhere. There was, in fact, a remarkable absence of lymph or of peritoneal exudate. The following condition was now noted after reduction: Extensive ecchymosis was observed in the portion of the omentum which had followed the invaginated bowel into the intussusciens: The bowel above the tumor was quite collapsed: there had been absolutely no distension. A very much thickened piece of bowel formed the apex of the intussusceptum. The amount of thickening here was so remarkable

that I found it impossible to convince myself by manipulation that the lumen was pervious. It reminded one somewhat of the normal pylorus, but involved a much larger extent of the gut. To make sure that obstruction was not complete I had normal saline injected per rectum, and satisfied myself that fluid passed through the thickened portion. During my manipulations I had ruptured a portion of the serous covering of the bowel, and this I repaired with a few points of fine silk suture. The abdominal wound was then closed by interrupted silk-worm gut sutures. A quantity of normal saline was left in the bowel. An hour after the patient was returned to bed half grain of calomel was given, and this was repeated every half hour until she had taken two grains. At 1 o'clock a.m. (four hours after the operation) the temperature was 99.4, pulse 160, and respirations 32 per minute. She was very quiet all night, but did not sleep much, in the morning a saline (magnesium sulphate) was administered and the bowels moved freely several times during the day. Salol and subnitrate of bismuth were now administered in appropriate doses every four hours and the patient was fed by peptonized milk by the mouth. She made an uneventful and uninterrupted recovery. Free action of the bowels was maintained daily by the administration of calomel and salines. There never was any abdominal distention and no vomiting after the operation. She was discharged from the hospital perfectly well on January 13th, 1902.

I find in my note-book a record of four cases of intussusception, operated upon with three recoveries. The *first* came under my observation when I was house surgeon in the Paddington Green Children's Hospital, sixteen years ago, and was admitted by me under the care of Mr. Stanley Boyd, the visiting surgeon on duty. It was a remarkable case of a child five years of age brought to the Hospital in a condition of profound collapse and supposed to be suffering from prolapse of the rectum. The supposed prolapse proved to be small intestine which protruded in a mass the size of a man's fist from the rectum. Mr. Boyd attempted to reduce this under ether, but respiration stopped and artificial respiration had to be maintained for half an hour. The child gradually rallied; however, the operation was abandoned for the time being and attempts made to stimulate the child in every possible way. Next morning (the child having been admitted at 8 o'clock the previous night soon after which the attempts above recorded were made) there was some improvement in pulse and temperature and laparotomy was performed: by careful and prolonged manipulation the intussusception was reduced completely, the operation lasting for an hour and a half. The

advancing part of the invaginated gut was found to be the ileo-cecal valve and the vermiform appendix. The child made an uninterrupted recovery. There had been a history of some obscure abdominal trouble extending over two months before admission to the hospital, and doubtless the intussusception was more or less chronic in character.

The *second* case I have recorded was that of a baby five months old, admitted for intestinal obstruction, under my care in the Hospital for Sick Children, Toronto, on December 15th, 1899. Abdominal trouble became apparent the morning of the previous day, and all efforts to get the bowels to move by the administration of purgatives were unavailing. Laparotomy was performed and a twist of the small intestine was found about two feet below the duodeno-jejunal juncture. Six inches above this an intussusception existed, involving four inches of the gut. This was readily reduced. Six inches still nearer the duodenum was a second intussusception involving some four inches of the gut. The portion of bowel above this point was greatly distended, whilst below it was remarkably collapsed and presented a curious pitted appearance. The wound was closed in the usual way. All efforts were unavailing to produce a movement of the bowels, and the patient died sixteen hours after the operation.

The *third* case was that of a boy fifteen months old, admitted to the Hospital for Sick Children, Toronto, under my care on April 20th, 1899. At 2 a.m. on the morning of admission the bowels moved freely after castor oil, but towards daylight abdominal pain became great and a considerable quantity of blood was passed per rectum. He also vomited persistently all day. Late in the afternoon he was admitted into the hospital when an enema was given, and as a result a small quantity of blood and mucus passed, but no fecal matter. Digital examination of the rectum revealed no tumor, but blood came away on the finger. The child was remarkably drowsy, in an almost semi-comatose condition, but he could be roused. He had little or no pain. The abdomen was somewhat tense, but not markedly so. There was some indistinct indication of a tumor on the right side in the iliac fossa. Chloroform was administered at 9 p.m. (about fifteen hours after the onset of the symptoms). Air was pumped into the rectum by a Higginson's syringe. This readily passed through the ascending colon and the transverse and the descending colon, but it seemed to stop at the ileo-cecal valve, where the tumor still appeared to exist. It was therefore considered wise to open the abdomen, and an incision was made in the right semilunaris. The cecum was pulled out into the wound, and on making traction upon it the ileum came into view. This was very

deeply congested, almost a port-wine color, and presented a mottled appearance. This condition existed for six inches of the gut and then stopped abruptly. On feeling this piece of intestine it appeared to be about three times as thick as normal and felt firm like a piece of leather. The condition of thickening and congestion continued right up to the cecum and ended there abruptly. It appeared that on pulling the cecum forcibly into the wound through a limited abdominal incision, the ileum had been pulled out of the cecum during the manipulation. There is, of course, the other possibility that reduction had been effected by the air inflated. The case illustrates the impossibility of determining with absolute certainty the effect produced by inflation in such cases. Silk-worm gut sutures were introduced and a dressing applied. The child made an uninterrupted recovery. These three cases I reported in detail two years ago.*

The *fourth* case is that of the patient whose history I have detailed in full at the beginning of this paper.

In the discussion on the treatment of intussusception in children at the last meeting of the British Medical Association at Cheltenham, abundant proof was forthcoming to indicate that early operative procedure should be the routine practice in these cases. There was also a strong expression of opinion against the time-honored custom of attempting a preliminary inflation before proceeding to laparotomy. The uncertainty which must necessarily exist in these cases as to the result of one's attempts at reduction by inflation is well brought out in the third case which I have cited in this paper. The possibility that inflation may effect an incomplete reduction with temporary relief of obstruction is apparently suggested by the fact that many such cases are said to "recur": in all probability they were never completely reduced.

Most instructive statistics are provided by Dr. C. L. Gibson, who gives an analysis of 187 cases in the *Archives of Pediatrics*, February, 1900, page 99. These statistics show conclusively the value of early operation.

Of cases submitted to laparotomy:

Reducible	126 cases, with a mortality of 36 per cent.
Non-reducible	14 " " " 64 "
Gangrenous	23 " " " 95 "
Gangrenous or irreducible	24 " " " 75 "

Simple laparotomy with reduction gave a mortality of 36 per cent.; laparotomy with resection (special method not indicated) gave a mortality of 81 per cent. in 32 cases; laparotomy with establishment of an artificial anus gave a mortality of 83 per cent. in 34 cases.

* *The Canadian Journal of Medicine and Surgery*, November, 1900, page 260.

126 PERFORATION OF THE BOWEL IN TYPHOID.

Another table shows the mortality after operation at varying periods of illness.

After 1 day's illness of 35 cases 13 died, *i.e.*, 37%, of which 91% were reducible.

" 2	"	" 36	" 14	" 33	" 83	"
" 3	"	" 33	" 20	" 61	" 61	"
" 4	"	" 15	" 10	" 67	" 40	"

After five and six days the mortality was seventy-three per cent. and seventy-five per cent. respectively.

These figures clearly indicate that the mortality is greatly reduced when operation is had recourse to early, and further, that the success attending early operation is largely due to the fact that reduction is possible in a much larger percentage of the cases presenting themselves at an early period of the disease than in cases coming under observation late.

100 College Street.

A CASE OF PERFORATION OF THE BOWEL IN TYPHOID: OPERATION, RECOVERY. FOLLOWED BY SUBPHRENIC ABSCESS: OPERATION, RECOVERY.*

By HERBERT A. BRUCE, M.D., F.R.C.S., ENG.,

Associate Professor of Clinical Surgery, University of Toronto; Surgeon St. Michael's Hospital; Surgeon Out-door Department, Toronto General Hospital.

G. A. S., M.B., age 29. Dr. Rogers, of Ingersoll, has kindly furnished me with the following history of the case:

"Last summer he suffered slightly with gastric and intestinal dyspepsia. At the time of his illness he was attending three typhoid cases, one very severe one. During the ten days previous to the attack on October 17th he had no appetite, aching pains generally, and chilly feelings, but no fever. He feared he had typhoid, but kept on his feet until October 17th, when he had a moderate chill. Temperature shot up to 103° F. and his pulse was 100 to 110. When I first saw him on the 19th he was suffering from a severe headache, muscular pains in various parts of the body, and a severe backache. Temperature 102½, pulse 100 and respirations 21. Examination of the urine revealed nothing abnormal. A blood examination gave the typical Widal reaction.

"On the 20th his temperature was 103, pulse 110, respirations 22, and his other symptoms were somewhat intensified. On the 21st he was removed to the Sanatorium at Ingersoll, and upon admission his pulse and temperature were as recorded. The case ran the usual typhoid course until the 26th, when a moderate hemorrhage occurred. On the 27th a second hemorrhage

* Paper read before the Toronto Clinical Society, March 5th, 1902.

of less magnitude occurred, and on the morning of the 31st a third slight hemorrhage. Temperature in the morning $99\frac{1}{2}$, pulse 78, respirations 20. At 10.30 o'clock that evening his temperature was $98\frac{1}{2}$, respirations 20 and pulse 78. He was feeling first-class at the time and was quite jubilant at the prospect of an early recovery. He went to sleep at 11 o'clock, but became restless at twelve, and tossed about until 2.30 in the morning, when he was seized with a severe pain in the region of the bladder. At this time his temperature was 99, respirations 20, and his pulse 76. The pain grew rapidly worse, and I was telephoned for, but as I was out in the country, Dr. Williams was obtained and ordered $\frac{1}{8}$ gr. morph. sulph. and $\frac{1}{32}$ gr. atrop. sulph., to be repeated in an hour if necessary. After the second hypodermic the pain was relieved.

"At 9.30 in the morning I saw him, and found quite a changed countenance from the preceding night. Temperature 104, respirations 26 and pulse 110. He had a very anxious expression, but said he felt pretty comfortable. There was not the slightest symptom at the time of collapse. At 12.30 o'clock Drs. Parke, Tait and Williams saw him with me, but no agreement could be arrived at as to whether or not perforation existed. Shortly after this I telephoned Dr. Bruce to come up on the 2 o'clock train."

I may say here that in telephoning Dr. Rogers told me that he suspected a typhoid perforation.

I will give my notes as to his condition when I saw him at 6.30 in the evening of November 1st. Temperature $103\frac{1}{2}$, pulse 126 and respirations 22. The abdomen was hard all over and tender. There was no distension, but, on the contrary, he was quite flat. The liver dulness was somewhat lessened, but had not disappeared. His facial expression was anxious and what one sees so commonly in peritonitis. A diagnosis of typhoid perforation was made and the patient prepared for operation.

Shortly after 9 o'clock he was brought into the operating room and was given chloroform by Dr. Tait. Dr. Rogers assisted me, and Drs. Williams, Parke and McWilliams were also present. The usual median incision was made, and the perforation was found very easily about ten inches from the cecum. It was very small, being only the size of the lead in a lead pencil. Some lymph surrounded the perforation. There was marked general peritonitis, and about a pint of seropurulent fluid in the peritoneal cavity.

A very interesting feature in connection with the appearance of the ileum was the fact that pieces of lymph, about the size of a half dollar, were present on the surface of the bowel, at intervals of three inches, extending over the lower three or four

feet, evidently nature's effort to reinforce the ulceration and avert perforation. The ulcer was turned in by means of a double row of Lambert's sutures, and the peritoneal cavity was flushed out with hot salt solution. Iodoform gauze was put into the abdomen at the site of the perforation, to act as a drain, and the abdomen was closed, with the exception of about an inch, to allow the passage of this gauze.

He was back in bed again at 10 o'clock, the operation taking about thirty-five minutes. We considered from the symptoms that perforation had probably occurred at 2.30 o'clock, so that the operation was done $18\frac{1}{2}$ hours afterwards. Immediately after the operation his pulse was 140, but in an hour's time it came down to 120: 1.20 grain of strychnine was given hypodermically immediately after the operation, and every two hours for four doses. Then 1.30 grain every three hours. Eight ounces of hot salt solution was given by rectum every two hours for the first twenty-four hours after operation. He was also given a nutrient enema, consisting of six ounces of milk and half an ounce of whisky every eight hours. At 12 o'clock he had a slight movement, very offensive, much flatus being expelled. At 1 o'clock his temperature was 100, pulse 118, and respirations 25. At 2 o'clock he had another small movement, a great deal of flatus being expelled. At 6 o'clock on the morning of the 2nd his temperature was 100, pulse 110, and respirations 26. At four in the afternoon his temperature was $99\frac{2}{3}$, pulse 120, and respirations 26.

On the morning of November 3rd his temperature was $99\frac{2}{3}$, pulse 106, and respirations 26. In the evening the temperature was $100\frac{2}{3}$, pulse 108, and respirations 28. From this he continued to improve until the morning of the 5th, when his temperature was $98\frac{2}{3}$, pulse 88, and respirations 22. Calomel was given on the 5th, and he had a free movement on the 6th, and temperature was normal on the morning and evening of the 7th, pulse 86, and respirations 20. The temperature fluctuated from this on, but gradually rose until on November 15th it went up to $101\frac{1}{3}$, with a pulse of 104.

On November 16th I went up again to Rogersoll as there was pus coming from the original opening left for drainage, and it was thought not to be draining freely. The patient was given chloroform, and the sinus enlarged and found to lead to a cavity about the size of a hen's egg, which extended from the middle line outwards to the outer edge of the rectus muscle, the floor being formed of loops of bowel. I made a counter opening here for drainage, wiped out the cavity with 1.40 carbolic acid solution, and put a drain in through the old opening, and out through the new one on the right side of

the rectus muscle. The temperature did not drop, however, as was expected after this procedure.

On November 20th he first complained of pain in the right side, in the region of the liver, and this gradually became more severe. A pleuritic friction rub was made out, and air did not seem to be entering the lower portion of the right lung. There was, too, at this time, some tenderness over the gall-bladder and increased dulness. This gradually became more marked, and the line of liver dulness descended. On the 25th Dr. W. P. Caven was called and examined the patient and thought that the gall-bladder was infected with the typhoid bacillus, and on the 6th of December Dr. Bruce came up again.

I will here give my notes of his condition on December 6th. His temperature the previous evening had been 102½, pulse 130, and respiration 22, and now his temperature was 101½, pulse 112, and respirations 22. On examination I found the liver about two inches below the ribs, the extent of liver dulness being greatly increased. The right side was bulged out, making it appear as if the liver was greatly enlarged. At the lower edge there was a great deal of tenderness, and the skin was red and brawny.

Dr. Rogers gave me a history of the gall-bladder having been markedly enlarged, and that only during the past couple of days had the swelling at the lower edge become diffused, and the outline of the gall-bladder disappeared. Chloroform was given by Dr. Walker, and Drs. Rogers and Tait assisted me. Owing to the above history I made an incision in the right semilunaris, and exposed the liver and gall-bladder. The gall-bladder was not enlarged, and appeared to be normal. On palpating the liver to the outer side of the gall-bladder, fluctuation could readily be made out. I made an incision into the liver at this situation, and evacuated about a quart of pus. On passing the finger through the opening in the liver, its margins were felt to be somewhat ragged, and my finger entered a large space behind the liver filled with pus. On passing my finger still further I could feel the ribs posteriorly. It was evident then we were dealing with a large subphrenic abscess, which had secondarily invaded a portion of the liver, destroying a small area about the size of an egg. An opening was then made in the tenth intercostal space, and another quart or two of pus was drained out through this. In making this incision the pleura was not opened into. I then explored the cavity through the posterior opening, and could make out pretty well the extent of it. After this pus was evacuated an enormous cavity was left between the liver and the diaphragm. Two drainage tubes were put in, and a large quantity of gauze. There was sufficient room between the

ribs to allow of this being done. A drain was put down to the opening in the liver anteriorly, and surrounded by strips of gauze, shutting off the peritoneal cavity. The wound anteriorly was closed with the exception of about half an inch, through which the gauze passed. He was under the anesthetic between thirty-five and forty minutes, and, considering his weak state, stood the operation very well. His pulse was 150 at the finish. Interstitial hot salt solution was given under each breast, about a pint, and hypodermics of strychnine were freely used.

Dr. Rogers says that the collapse following was most marked, and during the night an interstitial saline was given, strychnia and brandy hypodermically and oxygen administered, and eight ounces of hot salt solution was given by bowel every two hours. His temperature was $95\frac{1}{2}$, and his pulse 160. At times his pulse was quite imperceptible, and even when felt it was so rapid as to prevent its being counted. The following day the temperature rose to normal, and the pulse came down to 110-120. After this the temperature never rose above 100, and kept between normal and $99\frac{5}{8}$, until he left the Sanatorium, on January 7th, for home, the opening behind being completely closed. His pulse remained somewhat quick, however, varying from 80 to 110. After returning home he gradually and rapidly gained strength, and resumed his practice on February 15th.

I wish now to express my admiration and appreciation for the exceptional skill and ability shown by Dr. Rogers in his treatment and management of the case. He deserves all the credit for the diagnosis of the perforation, and his prompt action undoubtedly saved a valuable and useful life.

The perforation occurred on the fourteenth day after the real onset of the disease, as indicated by the chill, with the temperature running up to 103. I think it is generally stated that the most frequent time for perforation to occur is during the third week, the second week following very closely upon this. Osler says that perforation occurs in the majority of cases in small, deep ulcers, and that there may be two or even three, and that the orifice is usually within the last foot of the ileum. In one case only was it distant eighteen inches. Peritonitis was present in almost every instance.

I am going to quote from an excellent paper by Dr. W. W. Keen, of Philadelphia, on "The Surgical Treatment of Perforation of the Bowel in Typhoid Fever," published in the *Philadelphia Medical Journal*, of November 4th, 1899.

In 1898, he collected 83 cases of operation, of which 67 died and 16 recovered, a recovery rate of 19.3 per cent. The first

operation was done in 1884, and these cases were reported between 1884 and 1898, that is to say, during fourteen years.

During the eighteen months following this, he found reported 67 cases, of which 49 died and 18 recovered. This makes altogether 150 cases, in which there is a recovery rate of 22.7 per cent. In contrast is the estimate of Murchison, that the recovery rate in unoperated cases is only 5 per cent. He says that operation should be done in every case of perforation, unless the condition is such that recovery is evidently hopeless. Perforation occurs quite as often in mild as in severe cases, and possibly even more frequently. One case was operated on twice, with a fatal result; another, three times, and yet recovered. Age seems to have considerable influence on the recovery rate. Analysis shows that from fifteen to twenty-five is the most unfavorable age to operate, while the most favorable periods are over twenty-five, and especially under fifteen.

Sex, too, seems to have considerable influence on the mortality rate. In 121 cases, of which 102 were males and 19 females, 83 of the males died and 19 recovered, a recovery rate of 18.6 per cent. Of the females, 11 died and 8 recovered, a recovery rate of 42.1 per cent. In other words, while the number of operations in males has been over five times as many as in females, the recovery rate of females has been over twice that of males.

Next, as to the recovery rate in the various weeks of the disease. The mortality rate of the second and third week is by far the worst, yet even these two weeks yielded a recovery rate of 16 per cent. In the fourth week this rate is doubled.

Next, as to the time for operation. He claims that the best time is during the second twelve hours after perforation, and even if perforation is diagnosed earlier and there is profound shock, he thinks that operation should not be done until this has passed off. In cases, however, where there is no shock, most surgeons will agree that the abdomen should be opened at the earliest moment. Cushing and Taylor take exception to this, and state that the shock is due to sepsis and not to perforation, and that the quicker the operation is done the better for the patient. Cushing has proposed to operate in what he calls the "preperforative" stage. Keen urges that the surgeon be called in at the earliest moment, when any symptoms indicate possible perforation.

Next as to the use of an anæsthetic. Cocaine is recommended instead of a general anæsthetic. This was first used by Cushing in two cases. He says that local anesthesia is a great step in advance, and that he will never use general narcosis again in typhoid. While cocaine may be used in a large proportion of cases, there are many patients in whom the operation could

not be done without a general anæsthetic. Then ether will be found the safest anæsthetic.

Finney adds the suggestion that in any case in which diagnosis is obscure and there is reason to suspect the existence of a perforation, a small incision be made under cocaine anesthesia and cultures be taken from the abdominal cavity.

This exploratory incision would be followed by very little disturbance to the patient and very slight risk. Still more if we can anticipate both shock and sepsis, by diagnosing the preperforative stage, we have made an important further step in advance.

A very brief summary will be sufficient to indicate the further technic. The incision would be best made in the right linea semilunaris or through the rectus muscle. If such a general peritonitis be present that this will not enable us thoroughly to cleanse the abdominal cavity, a second incision may be made in the left iliac fossa. I prefer a median incision.

The perforation should be sought first in the ileum: secondly, in the adjacent cæcum and appendix: and thirdly, in the sigmoid. When found the perforation should be sutured without paring the edges.

Just a word in reference to the subphrenic abscess. The abscess in this case was a posterior one, and the pus had evidently accumulated in the retro-peritoneal tissue, inflammation having caused adhesion of the opposing layers of the lesser sac of the peritoneum, which formed a very strong barrier against the pus passing downwards into the general peritoneal cavity.

In the case of a subphrenic abscess developing in connection with ulceration of the stomach or duodenum, pus is most commonly found within the lesser sac of the peritoneum. As regards the symptoms of a subphrenic abscess, there will be, in addition to the usual signs of a collection of pus, elevation of temperature, rigors, perspirations, etc., tenderness over the liver, and often a slight pleurisy, with increased liver dullness and bulging of the right side.

Then we have the "diaphragm phenomenon," which is the existence of a shallow depression which moves with respiration, across the intercostal space to the left side, as the diaphragm ascends and descends. On palpation a collection of fluid may be felt. Greig Smith draws especial attention to the significance of a line or band of induration and resistance felt through the abdominal wall, moving with respiration. This band is due to the presence of adhesions which limit the abscess cavity below.

The patient was present, and said he was enjoying excellent health and had gained thirty pounds in weight since leaving the sanatorium.

GASTRO-ENTEROSTOMY IN PYLORIC OBSTRUCTION—A CASE.

An Abstract of a Clinical Lecture delivered at St. Michael's Hospital.

BY ALEXANDER McPHERDAN, M.B.
Professor of Medicine University of Toronto.

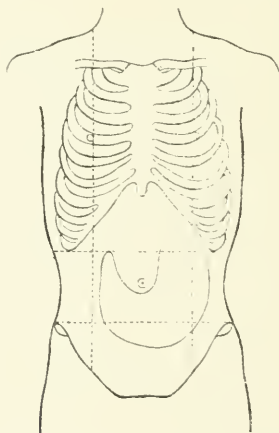
Rev. J. C., aged 45, has suffered from disturbed digestion for twelve or more years, being worse during the last year or two. Flatulence is the chief symptom, and, when marked, causes epigastric pain. His weight has fallen from one hundred and forty-five to one hundred and eighteen pounds; in the last few years it has not been more than one hundred and twenty-five pounds. He sleeps well; his appetite is good—in fact, somewhat ravenous at times. The bowels are constipated, but they move daily, the stools being scanty, hard and lumpy. The urine is not much below the normal in quantity, and is rather high-colored. Thirst is moderate; the skin is somewhat dry, but not harsh. Vomiting has occasionally occurred, caused by the accumulation of material in the stomach. He uses the tube once a week to give relief and prevent vomiting.

He is considerably emaciated; the abdomen is flat, with slight fulness from the umbilicus downward. When there is much food in the stomach a slight wave is easily perceived, passing from left to right over this fulness; if the abdomen is flicked with a cold wet towel, or even palpated with the cold hand, these waves become large and rounded, three of them being visible at the same time. They are not painful, in fact he is scarcely conscious of their occurrence. By palpation a very marked splash is easily produced over the prominent part of the abdomen, even six or eight hours after liquid has been taken. To the right of and above the umbilicus an oblong mass about one inch by two inches is easily felt; he discovered this tumor himself last winter. It is slightly tender and freely movable. On deep inspiration the right kidney can be palpated above and to the outside of the tumor.

A few days ago only toast and water were taken for breakfast; three hours later the stomach tube was passed and over a pint of fluid evacuated. This liquid contained the toast quite unaltered, and also potato and apple that had been eaten the day before. Much still remained in the stomach and, even after several washings, more was obtained by elevating the hips while the patient lay on his back. The acidity of the fluid was eighty and the proportion of free hydrochloric acid thirty-eight per thousand, fully double the normal. There was no lactic acid. The stomach was inflated with air to show

its size, position, and relation to the tumor. The abdominal wall was so thin and lax that the information was easily obtained, and is indicated by these marks on the abdomen.

The history and examination of this man show that there is organic stricture of the pyloric orifice, with moderate dilatation and marked prolapse of the stomach. The gradual formation of the pyloric obstruction has given time for some hypertrophy of the muscular coat of the stomach, as shown by the great peristalsis that is easily excited when the stomach has not been washed out for a day or two. If washed out, however, the peristalsis cannot be evoked even after taking



liquid or food: it seems necessary for the food to undergo changes that render it more irritating before it causes peristalsis.

That the stricture is not very narrow is shown by the fair state of nutrition, by the moderate quantity of stomach contents removed from time to time with the tube, and by the absence of extreme thirst and of great reduction in the quantity of urine. Little water is absorbed by the stomach, so that troublesome thirst and scanty urine are prominent symptoms of pyloric stenosis so marked as to prevent fluid from passing into the intestine.

The next question is as to the nature of the tumor, and on this the prognosis virtually turns. If it be a fibrous structure,

the patient's health should be restored when the obstruction is overcome, either by operation on the tumor itself or by gastro-enterostomy. But if the mass be malignant, an operation can give but temporary relief, as by this time neighboring lymphatic structures have been invaded by the disease.

The history and signs present are strongly in favor of the non-malignant nature of this mass. The chronicity of the dyspeptic symptoms, without recent serious aggravation: the long time the tumor has been present, its slow development, and apparent arrest of growth for some months back, the good health and fair nutrition; the excess of free hydrochloric acid in the stomach and contents; the absence of lactic acid: the freedom from signs of ulceration and of material increase of obstruction during recent months—all favor the view that the tumor is benign. Pain, more or less distressing, is almost always a symptom in cancer; in this case it has been present only after a large quantity of material has accumulated in the stomach.

It must be borne in mind also that much larger masses than this may result from chronic ulceration of the mucous membrane of the stomach. In a man aged 50, whom I saw recently, there is a large mass, occupying apparently the whole of the lesser curvature, that must be non-malignant, as it has existed unchanged since it was discovered upward of a year ago, and the man's general health has not suffered materially. However, there are no signs of ulceration in the present case beyond those of chronic indigestion, yet ulceration may produce no more definite symptoms. It is not to be overlooked that cases of carcinoma running a very protracted course, even for years, have been reported; it is probable that these were cases of chronic ulceration with great thickening, on which carcinoma developed subsequently.

For the foregoing reasons I have given this man an encouraging prognosis, so far as the nature of the disease is concerned. Now, how are we to give him relief from his discomfort and improve his strength? In order to maintain a fair state of health it is necessary that a proper quantity of food be digested and that the stomach be quite emptied at least once a day, so as to prevent irritation thereof by decomposition of its contents. With a moderate degree of pyloric constriction this may fairly be attained by giving nutritious food of little bulk in small quantities several times daily, and, if necessary, passing a tube once a day and washing out the stomach. In this way many patients can maintain a good degree of health and vigor. Additional liquid may be supplied to the blood by giving water by the bowel. This man has been carrying out this plan fairly well for some months, but he has now arrived at that

stage when it is not sufficiently effective. The pyloric stricture appears to be too narrow to allow the passage of sufficient food, and it has also become too difficult to empty the stomach by the tube. I, therefore, advised that the strictured pylorus be made freely patent or removed, or that a gastro-enterostomy be done, so as to give free egress for the food from the stomach into the bowel.

Posterior gastro-enterostomy was performed by my late lamented colleague, Dr. L. M. Sweetnam, as the pyloric mass appeared too dense to render any operation on it advisable. Recovery was uninterrupted and complete. It is now five months since the operation was done. Mr. C. has gained twenty pounds in weight and has been actively engaged in his ministerial duties. He takes full diet, and is not conscious of any digestive discomfort. However, on making an examination four hours after a light breakfast of cereals, bread and butter, sixteen ounces was removed from the stomach by the tube. The liquid obtained separated in a short time into three layers, an upper frothy layer, a middle one of thin liquid and a lower one consisting of the undigested food. From the lower layer small bubbles of gas could be seen constantly rising to the upper frothy layer, showing active fermentation. The acidity of the liquid was very high, being 95, and the free hydrochloric acid, 53.

The pyloric tumor has disappeared, although there is possibly slight thickening still to be felt in the situation it occupied. The size and position of the stomach have not altered.

The outlook is not as encouraging as could be wished. The pyloric tumor has disappeared, and the orifice is probably free again, but the quantity and character of the contents render it certain that there is decided dilatation of the stomach, and that the food does not escape freely through either the pylorus or the artificial opening. The latter is probably obstructed by cicatricial contraction, or the bowel may be kinked at the seat of attachment to the stomach. However, if a kink exists there would probably be a regurgitation of bile into the stomach, establishing a "vicious circle," and vomiting of bile as well as food would result. He has been advised to wash the stomach out once or twice a week; to take food of small bulk to lessen the weight on the stomach, and chiefly nitrogenous on account of the excess of hydrochloric acid; and to massage the abdomen daily.

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REPORT OF A CASE IN PRACTICE.

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There being much difficulty found in making clinical facts and observations coincide with what information it has been possible to acquire from experimental results upon the nervous system, any condition affecting any part of it, whether the result of disease or of accident, always presents some peculiar, interesting and instructive features to a close and careful observer.

As we read and study the lessons learned and taught by those early workers in our field of labor, we cannot help but appreciate and admire their adeptness and acuteness in their powers of observation. One cannot resist the conclusion that we at the present day are too apt and too ready and willing to trust to and rely upon the many aids and accessories that we can call to our assistance, which were unknown to our predecessors. There seems to be a deficiency or weakness in the present method of teaching. The fundamental principles of observation should be more systematically and more thoroughly instilled into a student commencing the study of medicine. It is when called upon to report cases in one's practice that we so often discover some points that we have overlooked, and which are absolutely necessary for the production of a complete clinical report. This, at least, is true as far as I am concerned, and in reading over reports from various sources, one cannot fail but see that there are many others afflicted with the same malady. This will help to explain the absence of some of those points which would render the reports of the following cases more complete.

The case is that of a man aged about 60. Occupation, office work. Was always in good health, never had any severe illness. In the autumn of 1897 he had a fatty tumor removed from over the left shoulder-blade. He partook of a certain amount of alcohol daily, and used considerable tobacco. From the tobacco he suffered from amblyopia for several months during the summer of 1898, which entirely disappeared in a few months by lessening use of tobacco and some slight medication.

On the morning of December 26th, 1900, after having probably taken a little more alcohol than was his custom the previous day, but from which he felt no effects the following morning, while sitting at the desk counting over some bills and reading other papers, he apparently let fall some bills accidentally, and in stooping over to pick them up he felt his left leg

weak and give way. He was assisted to a couch, and feeling somewhat weak and slightly dizzy, was given several drinks of Scotch whiskey. When seen three-quarters of an hour afterward he was reclining on a couch, his only complaint being a feeling of weakness and a funny sensation in his left side. The movements in the arm and leg could be performed without any difficulty, but were slightly tremulous and weaker than on the right side. The sensation was apparently unaffected. No other signs or symptoms of disturbance of function was complained of or could be observed.

Pulse was 75, regular, full but not hard. He was taken home in a coupe and put to bed. He felt drowsy and slept the greater part of the day. Became restless during the night and urinated frequently. The following morning he could still move the arm and leg but had less control, and there was less co-ordination in the movements. Toward night a muttering delirium set in, his tongue became dry, and there was complete loss of motion and sensation in the left arm and leg. His breathing became heavy and Cheyne-Stokes in character. Pulse 75, somewhat irregular, mentally he became torpid and drowsy. This condition gradually increased in degree, and by January 1st he was quite comatose, could be roused slightly only with the greatest difficulty. Seemed to understand what was said, would open his eyes and protrude the tongue. Breathing was blowing and stertorous, swallowed with difficulty, pupils reacted to light were apparently normal. Conjunctival reflex was absent, as were others on the left side. Urinary examination was normal. He remained in this condition several days, when he began to improve. He was more easily aroused, but when so was restless and wandered in his mind. As the coma lessened he became more restless and delirious.

By January 20th he was able to flex and extend the leg, and could also flex and extend the arm and close the hand, but could not exert much pressure. Sensation began also to appear. Mentally he was very despondent, fully understood what was said, and recognized his own family, but in the intervals, when not spoken to, and not sleeping, talked continuously, and at random.

By February 1st sensation had almost completely returned, slightly exaggerated, if anything. Motion was better but jerky, tremulous and rather inco-ordinate. Reflexes exaggerated. Otherwise he seemed to be all right. He improved gradually and continuously from this time on. Was able to walk about the room with the assistance of a chair or similar support.

About the last of March or the 1st of April he began complaining of chilly sensations in the back, no appetite and a

feeling of weakness. His temperature ran up to 102, pulse between 85 and 100, tongue furred, and for several nights in succession broke out in a cold, clammy, profuse perspiration. In examining to ascertain the cause, while palpating the abdomen and chest I was very much surprised to feel a diffuse thrill over the area of cardiac impulse and synchronous with it, and on auscultation found a marked murmur at both the mitral and aortic areas, occurring during both systole and diastole (early part). He also began to complain of radiating pains in the left leg, arm and back, which were tender to handle but relieved by gentle rubbing.

His condition now became that of a sepsis. Daily rise of temperature, pulse faster and weaker, appetite poor, restless, irritable, fretful, whining. These symptoms gradually passed away, and he began to improve again until about the early part of July, when he manifested some dyspnea, but did not complain of it. This was apparently due to some collection of fluid in the peritoneal cavity. This gradually increased, and a general anasarca developed. By limiting the amount of liquids in his diet and otherwise, this was lessened to a great extent. But there was a gradual decline in both his physical and mental condition.

In a couple of weeks dropsy again supervened, and he gradually sank, dying October 26th, just ten months after onset of illness.

Some points of interest to note are: (1) The peculiar mode of onset. (2) The loss of motion and sensation in the left leg, arm and face, without affecting any other parts. (3) The temporary duration of the loss of motion and sensation. (4) Supervention of the endocardiac trouble three months after the onset of the illness.

These naturally suggest several questions: First, as to causation (*a*) of the primary affection; (*b*) of the complication.

At the time of the attack the diagnosis of hemorrhage was made. Having given the patient a thorough examination of the heart at the time of the operation, and again at the time of onset of the present illness, without finding any evidence of cardiac trouble, I feel quite satisfied that the cardiac trouble was implanted upon the hemiplegic condition, and was not the primary affection. Still one has to admit the possibility of its existence without the production of any signs or symptoms, and without being possible to detect it. This, however, led me to exclude embolism. The diagnosis between rupture of a blood vessel and occlusion of one was more difficult. Broadly speaking, the two factors determining vascular occlusion from thrombosis are: Diseased vessels; morbid states of the blood. As regards the former, there was no evidence of any such con-

dition as far as could be detected from those vessels that could be examined. Neither was there apparent those conditions producing changes in the blood favorable to intravascular coagulation, such as gout, diabetes, anemic conditions, debilitating disease of any nature, nor had he undergone any great or unusual exertion. The age of the patient, the sex and the prolonged use of alcohol were points strongly in favor of hemorrhage.

These facts led me to favor the diagnosis of hemorrhage, even though it is said by some authorities that the usual result of the occlusion of a cerebral is hemiplegia uncomplicated with any affection of the cranial nerves or nuclei.

In the second place, it is difficult to localize the seat of affection to explain satisfactorily the conditions present. It is quite evident that the lesion is one of the upper neuron above the crossing of the facial nerve, that is above the middle of the pons.

The fact that no eye muscles were affected speaks against a lesion of the crus. The conditions tally pretty closely with those described by Clifford Albutt's system of medicine under the heading of "Occlusion of Cerebral Vessels," and may be met with when a vessel is either occluded or ruptured (1) in the cortex; (2) under the cortex; (3) in the vicinity of the internal capsule.

If the diagnosis of hemorrhage was correct, it is probable that the lesion was in the vicinity of the internal capsule, as bleeding in the cortex would have to cover considerable area to involve all the movements affected, and bleeding in the white matter under the cortex is comparatively rare, so that taking all things into consideration they point to a lesion in the neighborhood of the lenticular nucleus of the corpus striatum.

Clinical Note.

REPORT OF A FATAL CASE OF ECLAMPSIA.

By K. C. McILWRAITH, M.B. Tor., F.O.S. Ed.

The patient was admitted to the Burnside Hospital on September 17th at 2 p.m., unconscious. Her mother said that she had been suffering from headache, swelled feet and specks before the eyes for some time. She had the first convulsion about 7.30 a.m. She had numerous convulsions during the morning, and three in the ambulance on the road to the hospital. The patient's physician had been absent from the city and there had been delay in obtaining medical aid, so that there had been nothing done for her before admission.

State on admission.—Profoundly unconscious, pulse 160, very feeble; os the size of a half dollar. She had one convulsion immediately after entering the hospital, for which morphia sulph., $\frac{1}{2}$ a grain, was given hypodermically. The patient was anesthetized, bipolar version performed, and the child quickly extracted. (Drs. A. H. Wright and K. C. McIlwraith). The patient was allowed to bleed freely after the birth of the child. One quart of normal saline solution was given by submammary injection during the operation. The patient had a convulsion on coming out of the anesthesia, after which respiration failed so completely that artificial respiration was necessary to revive her. She had convulsions at intervals during the afternoon, sank continually, and died at 11.30 p.m. She received in all two grains of morphia; two quarts of normal saline submammary; $\frac{1}{10}$ grain strychnia hypoderm., an enema of mag. sulph. and glycerine, and oxygen inhalations during the last two hours. It was found impossible to administer medicines by the mouth. The baby was kept alive for two hours by artificial respiration.

(The important lesson to be learned from this case is that prophylactic treatment carried out when ordinary symptoms of toxemia of pregnancy first appeared would probably have prevented the eclampsia. It is also possible, if not probable, that active treatment undertaken at once after the first convulsion occurred might have prevented a fatal termination. Unfortunately, her own physician had not been consulted concerning her serious symptoms and was absent when eclampsia began.—A.H.W.)

Selected Articles.

GASTROPTOSIS—HOW TO SEE THE STOMACH CURVATURES WITH OUR NAKED EYES, WITHOUT THE AID OF INTRAGASTRIC INSTRUMENTS OR INFLATION.

BY MARK I. KNAPP, M.D., NEW YORK.

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Diseases of the Stomach.

Of the several methods employed for the physical examination of the stomach, the first one—inspection—has been treated in a very stepmotherly way. But a few words, a sentence or two, and the subject is dismissed as inferior to any other method. It is spoken of as a sort of adjuvant to other methods of examination. And, indeed, in my article on "The Physical Examination of the Stomach" (*New York Medical Journal*, March 31, 1901), I followed the "consensus of opinion" in declaring, "as a rule it gives little information"; but, following this, I say, "on the other hand, it may prove a very valuable aid." Usually, inspection is given some thought when the patient has not been blessed with an over-abundance of fat. But when the adiposity has transgressed the recognized boundaries of economic propriety, other methods than inspection are resorted to. Outside of one other method—palpation—the methods ordinarily employed have objections. These objections are: The having to enter the stomach with an instrument or by the methods otherwise employed, changes the position and axis of the viscus. The stomach, weighted with water for gastrodia-phany or inflated with air or gas, is not the stomach when not so interfered with. Palpation is true, but it is an art that must be acquired by patient and constant practice. To the experienced palpator there exists no difference as to the thickness of the abdominal parietes for the purpose of feeling for superficial abdominal organs. But, even above palpation, which must never be neglected in examinations, I place inspection. For the purpose of inspection of the stomach, the thickness of the abdominal wall is of absolute indifference. The greater curvature of the stomach and also the lesser curvature—in gastroptosis—can be seen with absolute and unerring distinctness upon the wall of the abdomen, no matter how thin or thick, without the aid of anything else than our naked eyes. No carbon-dioxide production in the stomach, air inflation, gastrodia-phany, or sound palpation is necessary, and the results of inspection, when that art has been acquired, are absolutely true and unerring. I shall here confine myself only to describing the

"seeing of the curvature" of the stomach, although by seeing in the same way the existence of an enlarged liver, of a displaced and enlarged spleen, of a displaced, tumefied kidney, or of abdominal, superficial tumors, can be diagnosticated with the exactest precision.

For the purpose of such inspection, the patient bares his abdomen and lies down on a table in the usual dorsal position. The examiner now stands either at the side or at the shoulder of the patient, so as to have either to look up to the stomach region or down to it. He now brings his eyes on the same level with the prominence of the patient's abdomen, and watches abdominal respiration with one eye or both. The patient now breathes in a normal way, and the examiner follows certain lines which he sees move up and down with the respiration on the abdominal surface. The curvatures of the stomach will be seen distinctly as very fine lines moving under the skin with the respiration. We watch these lines for a few respirations, note where they stop each time, and mark with ink the spot where such lines constantly stop. These are the lines produced by the curvatures. An acute observer will not fail to notice that there is also a distinct difference in the plane of the abdomen where the curvatures are seen. To corroborate, we percuss in the following way: The closely apposed index and middle fingers of the left hand are placed on the abdomen so that the ink line, representing the curvature, is between these two fingers. Now we percuss, very gently, over each finger without separating them and without removing them from where we have placed them. If the line marked on the abdomen exactly corresponds with the curvature, the difference in the percussion resonance over each finger will be heard. As very gentle percussion is required, the use of the stethoscope will be found of material value. For that purpose the stethoscope does not necessarily have to be placed over the stomach, but can be placed anywhere on the abdomen. Where there is a doubt as to the identity of the organ over which we percuss, we may resort to inflation, not of the stomach, but of the colon. Inflation of the colon is not met with the same objection from the patient as inflation of the stomach. This inflation of the colon is carried out in the ordinary way. A double rubber bulb has attached to its long tubing any kind of a short nozzle, which may be either the common, short, hard-rubber rectal nozzle, or a nozzle improvised from a short piece of glass tubing, the ends of which have been smoothed either with a file or by heating it to a red heat. The colon having been inflated, we again percuss in the way just described. The inflated air must not be left in the colon, but allowed to escape, which is done by disconnecting the nozzle from the tubing and leaving it in the anus until the air has escaped.—*New York Medical Journal*.

TREATMENT OF GASTRIC ULCER.

Fleiner (W.). *Die Therapie der Gegenwart*, 1901. It is essential for the healing of a gastric ulcer that the stomach contract to its smallest possible volume, and remain so for a considerable period. Under these circumstances the deeper parts of the terrace-like edges are brought into contact, and the ulcer is reduced in extent and depth. The time which must then elapse before the more superficial parts are repaired by the formation of granulation tissue and its organization into a resisting cicatrix, depends on so many variable factors that it is difficult to estimate. Six weeks is regarded as an average time for such healing to obtain. The control of the volume of the stomach is therefore an important factor. The slightest relaxation in the tonus of the stomach wall must be combated by the ice-bag, hot applications, or the thermophor, and any marked distension of the organ by increasing the intervals between the meals, reducing the amount of the latter, or by temporary deprivation. Under such conditions malnutrition readily occurs, and itself delays the recovery of the patient, and this has to be met by rectal feeding.

There are many cases of gastric ulcer, however, which do not respond to such systematic dieting, even of several weeks' duration, or they do so imperfectly and temporarily. Such cases are those of old ulcers with dense fibrous bases, and in which, even when the organ is well contracted, there is no approximation of the edges, the base in great part remaining exposed to the irritation of the ingesta and the hyperacid gastric juice. In such ulcers granulation tissue develops more tardily, and, by reason of its poor vascularity, offers much less resistance to the digestive action of the powerful gastric secretion: hence the healing process is much slower and the treatment more protracted than in the case of recent ulcers.

In chronic ulcers, associated with marked hyperchlorhydria, the initial milk diet of the routine gastric ulcer treatment is not well borne, and has to be replaced by such things as meat juice, broth, eggs, meat jelly, etc. But with any kind of food, even the most bland, irritation of the exposed base of the ulcer is readily produced, giving rise to pain, salivation, heart-burn, and retching. Far worse are the complications of such ulcers situate in the pylorus, or which are directly or indirectly, through nerves, connected with the pyloric sphincter. It would appear, from the frequency with which the various manifestations of nerve irritation, sensory, secretory, motor, are observed, that the bases of such ulcers contain nerves, either exposed directly to the irritating gastric contents, or merely protected

by a layer of granulation tissue. So long as the effects of this nerve irritation do not interfere with the functions of the ostia, they are of comparatively little importance, and may even serve a useful purpose; but they attain marked significance when resulting in spasm of the cardiac and particularly of the pyloric ostium. Pyloric spasm occurs most commonly in connection with ulcers which have given rise to some stenosis of the pylorus, and, as a consequence, hypertrophy of the muscular layers and some degree of dilatation. So long as such an ulcer is covered with granulation tissue all remains well, but when the continuity of this protecting layer is broken, the opportunity for pyloric spasm appears. With the occurrence of this, all those conditions favorable and essential to the healing of the ulcer disappear; there is instead, stagnation of the gastric contents, irritation of the ulcer, continuous secretion of gastric juice, and later much dilatation of the stomach, eventually relieved by vomiting and associated with a curious colic spasm of the diaphragm.

In the treatment of this type of ulcer, Fleiner has employed, for the last ten years, bismuth subnitrate in large doses, and with considerable success. The indications for the exhibition of this drug and the method of its administration are as follows:

1. In cases of simple recent ulcers which recover with dietetic (milk) treatment alone, the change from a fluid to a semi-solid, and from this to a solid diet, may be associated with excessive hydrochloric acid secretion or pain, which, if not rapidly mitigated by an alkaline water (*eg.* Vichy), call for the use of bismuth in large doses. In order that the effect of the drug may be assured, it is necessary that the stomach be clean before its administration, as the use of the stomach tube and lavage is admissible in such cases. This is attained by giving $3\frac{1}{2}$ —5 \bar{z} of warm Carlsbad or Vichy water first thing in the morning on the empty stomach, and then, about one hour later, 75—150 grains of bismuth stirred up in 3—4 \bar{z} of water. After the lapse of half an hour the first meal may then be taken. This is to be repeated every morning, in some cases twice a day, and then, when the patient has remained free from pain for about a week, the quantity of bismuth may be gradually diminished or replaced by *magnesia usta* (1:2). There is, however, no harm in continuing with the full doses of bismuth.

2. In cases of old ulcers with hard cicatricial bases, which will neither contract nor stretch, and which are constantly exposed to the irritation of food residua, rendering necessary the removal of the latter by lavage, a layer of bismuth subnitrate over the base of the ulcer exerts a marked beneficial

effect. If the protecting layer of bismuth is large and thick enough, and is regularly renewed or replenished, the subjective and objective manifestations of the lesion rapidly disappear. The bismuth must in such cases be given in somewhat larger doses, viz., 150—300 grains. It is quite harmless, acting merely mechanically, and being completely excreted from the alimentary canal per rectum, aided in some cases by clysters. The bismuth should be exhibited after washing out the fasting stomach in the morning. When the wash water flows away quite clear, then the bismuth, mixed with $5-8\frac{3}{4}$ of water, is allowed to flow into the stomach through the tube. The latter being withdrawn, the patient assumes such a position as is calculated to allow the bismuth to settle down on the surface of the ulcer.

Generally after a few days, often on the first day, the pain disappears, and then the amount of bismuth may be daily diminished, and, after a few weeks, may be given less often, and, when the lavage becomes unnecessary, may simply be drunk. The disappearance of all discomfort, and the tolerance of an ample, mixed, non-irritating diet will indicate the time at which the treatment may be relinquished.

3. In cases of gastric ulcer complicated with pyloric stenosis, one can, by rest and careful feeding with small, frequently administered quantities of food, lavage, and the exhibition of bismuth, lessen much of the discomfort, improve the general nutrition, prevent the detrimental pyloric spasms, and procure periods of comparative ease: but healing only rarely can be attained. Fleiner recommends in such cases the performance of gastro-enterostomy as early as possible.

4. Treatment by bismuth is contra-indicated, because without benefit, and under certain conditions even harmful, in gastric ulcers which form deep diverticula-like pouchings of the stomach wall, and in those where extensive adhesions having formed to neighboring organs, erosion has occurred through the adhesions and excavated the adherent part. In one such case the writer found the bismuth had formed a large concretion in the eroded cavity.

The recognition of this latter type of ulcer is difficult, but in the case which Fleiner investigated, he noted a point of some diagnostic importance, viz., that the particles of bismuth contained in the stomach washings, had a black color, whilst ordinarily they appear greyish white. This conversion of the subnitrate into the black oxysulphide, in the absence of any H_2S formation in the stomach, he thinks may prove of value in subsequent cases.—F. CRAVEN MOORE, in *Medical Chronicle*.

FORMALIN AS A DISINFECTANT FOR THE HANDS: AN UNPLEASANT PERSONAL EXPERIENCE.

BY CHARLES P. NOBLE, M.D., OF PHILADELPHIA.
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Desiring to improve upon the present methods of hand disinfection, I was led to experiment with formalin solution as a substitute for bichlorid of mercury solution. Heretofore the method of hand disinfection which I have employed has been to spend fifteen minutes in scrubbing the hands with soap and hot water and in cleaning the nails. This was followed by an alcohol bath, and after this the hands were put through a saturated solution of permanganate of potash, a saturated solution of oxalic acid, and bichlorid solution 1 to 1,000. In the bichlorid bath the hands and forearms were immersed and allowed to soak. This method of hand disinfection has given very good practical results. The introduction of rubber gloves into surgery caused one unpleasant consequence from the above method of hand disinfection, the sulphur in the gloves and the bichlorid solution, left upon the hands, uniting to make a sulphide of mercury. This caused a black discoloration of the nails. The result of a winter's work was that the nails became so black as to be distinctly noticeable and to attract unpleasant attention. It was principally on this account that it was desired to eliminate the bichlorid solution. I was led to try formalin solution principally by the fact that it has entirely displaced bichlorid solution in the practice of Dr. Charles Jacobs, of Brussels, and that of Drs. G. E. and J. Lynn Crawford, of Cedar Rapids, Iowa.

After having used formalin solution for about a month, a great inflammation appeared at the end of all my fingers, involving the nails. This inflammation was so violent that serum formed under the nails, separating them from the underlying tissue, and it seemed for a time as though all the nails would be exfoliated. Under the influence of rest and elevation of the parts, together with an ointment of ichthyol prescribed by Dr. H. C. Stelwagon, the inflammation subsided without suppuration. As a consequence, however, the nails separated on an average of about one-third of their length from the distal extremity, but they are now gradually returning to the normal. It was an interesting question as to the cause of the inflammation. The simultaneous involvement of all the finger ends excluded with reasonable certainty ordinary infection as a cause. My previous condition of health, and also an investigation by Dr. Judson Daland, excluded gout or other systemic

causes as a possible explanation of the condition. A local irritation was left as the only reasonable explanation. As the use of formalin was the only change which had been made in the method of hand disinfection which had been used for years, it was evident to me that this was the cause of trouble: and on reflection it was recalled that on the two days preceding the attack rubber gloves had been worn during four hours each day in the operating-room, and also that on these two days the gloves had been put on filled with a solution of formalin 1 to 500. My usual practice in putting on gloves is to have them filled with salt solution, but on the two days in question the operating-room staff being unusually busy, the gloves were filled with formalin solution to avoid taking the nurse away from other duties. The factors concerned in the production of the inflammation were: First, the use of formalin solution, and second, its prolonged contact with the finger ends, there being enough of the solution left inside the gloves to keep the finger ends moistened in the solution while the gloves were worn. This experience is repeated not to warn others against the use of formalin solution for hand disinfection, but to teach the importance of avoiding a prolonged contact with even a dilute solution of this agent.—*American Medicine*.

Society Reports.

PROCEEDINGS OF ONTARIO HOSPITAL ASSOCIATION.

HELD IN TORONTO, FEBRUARY 15TH, 1902, AND THE DEPUTATION THAT WAITED
ON THE GOVERNMENT, FEBRUARY 19TH, 1902.

In compliance with the request in the circular letter sent out to the hospitals of Ontario from the County of Carleton General Protestant Hospital of Ottawa, bearing date January 7th, 1902, and signed by Mr. E. B. Eddy and Mr. T. W. Kenny, a number of ladies and gentlemen met at the Queen's Hotel, Toronto, February 18th.

The following were present: Mr. E. C. Gurney, from Grace Hospital, Toronto; Dr. Spiers, Galt Hospital, Galt, Ont.; R. E. Nelson, Guelph General Hospital, Guelph; Mrs. J. Bell and Mrs. Rathbun, Belleville General Hospital; Alex. Lumsden, M.P.P., Maternity Hospital, Ottawa, Ont.; F. Haight, Berlin and Waterloo General Hospital; H. Malcolmson, Public General Hospital, Chatham; Dr. A. Robillard, Water Street General Hospital, Ottawa; Dr. Herold, Kingston General Hospital; J. P. Featherstone, C. C. Roy and G. L. Orme, County Carleton General Protestant Hospital, Ottawa; Drs. J. Ferguson, G. H. Carveth and Price Brown, Western Hospital, Toronto; Dr. M. O'Connor, St. Michael's Hospital, Toronto; Dr. C. O'Reilly and A. F. Miller, Toronto General Hospital, Toronto; C. F. Maxwell, St. Thomas Hospital, St. Thomas; Dr. Edgar, Hamilton City Hospital, Hamilton; Robert McLaren, General and Marine Hospital, St. Catharines; Grant Ridout, Children's Hospital, Ottawa; James McLaughlin, General and Marine Hospital, Owen Sound; Dr. F. L. Howland, General Hospital, Huntsville; F. Cochran, Mayor of Sudbury, St. Joseph's Hospital, Sudbury.

Mr. E. C. Gurney was unanimously asked to take the chair, and Mr. G. L. Orme to act as Secretary of the meeting.

The Chairman thanked those present for the honor they had done him, and stated that the objects of the meeting were to consider in what way they could best promote the interest of the hospitals throughout the Province. He called upon Mr. J. P. Featherstone, of Ottawa, to address the meeting.

Mr. Featherstone then addressed the meeting at considerable length. He pointed out that the Government grant to patients in the hospitals had fallen from 30c. per diem. to 18c. per diem.

This was due to the fact that while the total grant for many years had remained the same the number of hospitals and patients had greatly increased, from 40c. to 80c. or \$1.00 per day. This was owing to better and more expensive accommodation being required. He further pointed out that the Succession Duties Act, which took a good slice of wealthy estates for charitable purposes, often prevented wealthy persons from making bequests to hospitals. Thus, while the Government grant had decreased nearly one-half, there were fewer private and voluntary donations and legacies. He went on to say that few municipalities did all they ought to do, and some did nothing towards the maintenance of its indigent sick. He urged that steps be taken to secure a proper measure of county and city aid. He suggested that a Provincial Hospital Association be formed to further the welfare of the various hospitals.

The following resolutions were then put and unanimously adopted :

NAME.

The organization shall be known as the Ontario Hospital Association.

OBJECTS.

1st. To procure increased Government aid for the maintenance of indigent patients in the public hospitals of Ontario.

2nd. To take steps to secure a proper amount of county and city aid.

3rd. To promote, by mutual suggestion and discussion, the interests of hospital work throughout the Province.

MEETINGS.

The Association shall meet annually in Toronto at such time as may be decided best in the opinion of the Executive for the furtherance of the work of the Association.

OFFICERS.

The officers shall consist of a President, six Vice-Presidents, a Secretary-Treasurer and a committee of eight, who shall constitute the Executive, and of which number five shall form a quorum.

MEMBERSHIP.

Each hospital in the province receiving Government aid shall be entitled to be represented, and any member of its Board shall be entitled to membership in the Association, but each hospital shall be entitled to one vote only.

FEES FOR MEMBERSHIP.

1st. It was moved and adopted that the minimum fee from each hospital be five dollars, and

2nd. That the fee for individual membership be one dollar.

ELECTION OF OFFICERS.

President, Edward C. Gurney, Esq., Toronto; Vice-Presidents, C. O'Reilly, Esq., M.D., Toronto; J. P. Featherstone, Esq., Ottawa; B. W. Robertson, Esq., Kingston; Adam Bucke, Esq., London; George Roach, Esq., Hamilton; H. Malcolmson, Esq., Chatham. Secretary-Treasurer, J. Ferguson, Esq., M.D., Toronto. Committee: M. O'Connor, Esq., M.D., Toronto; Robert McLaren, Esq., St. Catharines; J. Stratford, Esq., Brantford; A. Robillard, Esq., M.D., Ottawa; James McLaughlin, Esq., Owen Sound; T. L. Kenny, Esq., Sarnia; Robert Melvin, Esq., Guelph; T. Cochrane, Esq., Sudbury.

INTERVIEW WITH GOVERNMENT.

Mr. A. Lumsden, M.P.P., announced that the Government would receive the members of the Association at a deputation at 12 o'clock, on the 9th inst., in the Premier's room. It was then agreed that as many as possible should be present in the deputation.

The meeting then adjourned.

THE DEPUTATION.

According to appointment, a deputation consisting of the following gentlemen waited upon the Government:

C. C. Roy, G. L. Orme, J. P. Featherstone, C. O'Reilly, M.D., A. F. Miller, A. A. Macdonald, S. Chant, C. F. Maxwell, P. Meehan, Edward Gurney, R. E. Nelson, Robert McLaren, H. Malcolmson, F. L. Howland, M.D., J. M. Laughlan, G. M. Boyd, M.P.P., E. J. B. Spense, M.P.P., W. A. Kribbs, M.P.P., F. Cochrane, B. Powell, M.P.P., T. Meek, A. Robillard, M.D., R. W. Powell, M.D., W. J. Wilson, M.D., G. H. Carveth, M.D., A. Lumsden, M.P.P., G. F. Marter, M.P.P., John Lee, M.P.P., J. J. Foy, M.P.P., A. R. Pyne, M.D., M.P.P., and T. Crawford, M.P.P. Hon. G. W. Ross, Hon. J. R. Stratton, Hon. Jas. Gibson and Hon. Latchford received the deputation.

Mr. A. Lumsden, M.P.P., introduced the deputation. He stated that the deputation was an unique one. It did not come to seek any personal advantage or gain; it was entirely philanthropic and sought the good of the indigent sick in the Province. He stated that many of the hospitals in the Province, at the call of the circular letter, had sent representatives

to Toronto, and that these had organized themselves into an influential Provincial Hospital Association. He then asked Mr. Edward Gurney, the President of the Association, to address the members of the Government.

Mr. Gurney said that the deputation sought to place the needs of the hospitals before the Government. Hospitals had not been supported by the Government as the asylums had been. It was the duty of the well to care and look after the indigent poor. In the matter of the Government grant to the hospitals there was a grievance, and the deputation asked to have this grievance remedied. The grant had fallen from 30c. to 18c. per diem. If the Government did not act and move liberally the time might come when the hospitals would be forced to refuse admission to the poor. The need was urgent and assistance should be granted at once. Hospitals were going back financially. Mr. Gurney then asked Mr. Featherstone to state his views on the objects of the deputation.

Mr. J. P. Featherstone went on to show that the Government grant was now 18c. or less per day, whereas it formerly was 30c. On the other hand the cost of maintenance had gone up from 40c. or 50c. a day to 80c. or \$1.00 a day. Municipalities did not always do their duty in the matter of aid to the poor; but even where the municipalities did give aid, the Government grant of 18c. was too small. The Succession Duties Act had interfered with bequests and donations, as persons would not give when the estate would be taxed. It was clear that in this way the income to hospitals was very much lessened. Notwithstanding the fact the income to the Government, for the Succession tax, had greatly increased, the total amount to the hospitals had not increased, while the number of patients entitled to assistance had greatly increased. The time had now come when it was necessary, if the hospitals hoped to keep up with medical and surgical advance, that the Government should restore the grant to its original amount of 30c. per diem.

Mr. Ross and Mr. Stratton promised to give the matter careful consideration. They pointed out that the Succession Duties Act only provided about one-third of what was paid out in charities; and also that the tax might have the effect of making some contribute to these charities who would not otherwise do so.

The deputation then withdrew.

The Secretary has since prepared a lengthy letter giving all the facts brought out before the Government by the deputation. A copy has been sent to each Minister. The letter was submitted to the President.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

Influence of the Spleen upon Pancreatic Digestion.

The theory of Schiff, according to which the spleen forms a substance essential for the pancreatic digestion of albumen, although recently combated, had been supported by some experiments of Herzen, Gachet and Pachon, who found a substance transforming trypsinogen into trypsin. Dastre had shown that splenectomy did not change the general condition or arrest development.

Delezenne and Frouin have isolated the stomach from dogs, suturing the lower extremity of the esophagus to the duodenum without injuring the pneumogastric nerves. The two extremities of the esophagus were closed and a small fistula was made through the abdominal wall. The glands of the stomach continued to secrete a normal gastric juice, which was collected every twenty-four hours. When the animals recovered the spleen was removed. In other experiments the stomach was removed, and then the spleen. Digestion in these animals was entirely pancreatic, and the splenectomy produced no disturbances. The dogs continued to live comfortably. The secretion of the stomach remained normal. There were no changes in the quantity or quality of the gastric juice. The spleen, therefore, did not seem of great importance.—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

Pulmonary Dilatation with Slow Action of the Heart—Neurosis of the Pneumogastric.

Zulzer directs our attention to a morbid condition, having for its substratum a neurosis of the pneumogastric. It is seen especially in men between eighteen and fifty years of age, and is characterized by a dilatation of the lungs, the limits of which reach the seventh or eighth rib on the right, the fifth on the left side, and also by the slowness of the pulse, which beats only from fifty-two to sixty times to the minute. The patients usually complain of a feeling of oppression, which may even become agony, and they are thus often considered neurasthenic or hysterical. Auscultation reveals normal respiration without

pathological sounds, but sometimes slightly accelerated; the cardiac dulness is a little increased; the pulse, while slow, is strong and full, and but rarely irregular. This association of an increase of the volume of the lungs with a diminution of the heart beats might be a mere coincidence. But the susceptibility of the pneumogastrics to pressure in the region of the neck, and especially the effects of atropine, a subcutaneous injection of which suffices to dispel the symptoms, show clearly that we have to do with a neurosis from excitement of the pneumogastric.

This trouble is more frequently developed as a result of unaccustomed muscular efforts; it may also be caused by reflexes of gastric or intestinal origin; in certain cases there seems to be a family predisposition. Zulzer has observed the same symptoms in grandfather, father and son. Generally, treatment by atropine, continued for ten days, produces a permanent cure. Nevertheless, just as alimentary glycosuria is often a precursor of diabetes, so this neurosis, due to excitement of the pneumogastric, may lead to asthma.—Translated from *Giornale delle Scienze Mediche*, by HARLEY SMITH.

Good Digestion in Consumptives.

While climatic treatment counts for a great deal, and should be strenuously insisted upon in every case where its pursuance becomes at all possible, yet along with that course, and of vast importance, is a good digestion. And in those whose circumstances preclude the advantages of the climatic treatment it is especially important that the normal powers of digestion be highly conserved. Loomis says "when the digestion is bad the case is bad." That is a short, emphatic way of expressing it.

So much depends upon a forced feeding and the thorough digestion of rich, fat food, that a weak stomach at once handicaps a patient, besides adding the despair of indigestion to the mind disturbance resulting from a consciousness of the pulmonary conditions.

Then, again, indigestion reflects upon the heart action, making it higher than it would be under the burden of the tuberculous process alone—creating a result that is wearing, and therefore generally debilitating. Small, regular quantities of alcohol aid digestion in most persons, and are indicated in pulmonary tuberculosis for this purpose, if for no other; but where alcohol evidently disagrees with the stomach action it should not be persisted in for any other possible benefit it may have upon the system in general. It will, under such circumstances, do more harm than good.

Cases of unquestioned tuberculosis can no more be treated by rule than other morbid instances. One must constantly exer-

cise selective judgment, but urging the patient, so far as possible, along well-recognized lines.—*The Clinical Review*.

Euthanasia.

The current number of the *Spectator* contains an interesting correspondence on this subject. It is said the late Mr. Alfred Nobel offered to create at his own expense at Milan and Rome establishments where anybody who desired it could be painlessly suffocated by a gas he had found suitable. Sharp distinction must be made between suicide and natural euthanasia. For the latter the hygienist and medical man labor. A lust of death is morbid, and any encouragement must be stoutly resisted. Medical men recognize that for the public as well as for the profession there is only one sound principle—life must be held to be absolutely sacred, except when it has to be relinquished as a penalty for crime. Efforts to relieve suffering and render death painless are legitimate, but if euthanasia is to be achieved by means of a suicide club, society and science must have none of it.—*Medical Press and Circular*.

Dysphonia (Hoarseness).

The following gargle can be employed in case of emergency when it is desired to use the voice in singing or speaking:

R Acidi tannici, gr. xl.
 Boroglycerini, ℥ iss.
 Tinct. capsici, mxx.
 Infusi rosæ, q. s. ad f ℥ v.

M. Sig.: Use frequently as a gargle.—*Journal of the American Medical Association*.

SURGERY.

IN CHARGE OF EDMUND E. KING AND HERBERT A. BRUCE.

Spasm of the Urethra.

F. Fuchs (*Therap. Monatsh.*, August, 1901) considers that the want of attention to the spasm of external sphincter of the bladder, or, as he puts it, of the membranous portion of the male urethra, often causes great difficulty of the diagnosis of stricture. The most common mistake is, that passing a soft catheter through the penile portion it is arrested at the membranous part and held tight by the spasmodic action of the sphincter. If extra force be then applied the spasm becomes more distinct, and therefore the diagnosis of stricture is made. However, one has only to wait for a few minutes, after which

the spasm disappears and the catheter can be pushed without difficulty into the bladder. A metal catheter, he says, rarely produces the spasm. At times, when the ureter is being washed out with a solution of nitrate of silver for gonorrhea, he has met with another effect of this spasm. Introducing a silver catheter into the membranous portion and washing this out, the spasm is set up, and on attempting to withdraw the instrument it is found to be tightly grasped. One has again merely to wait a few minutes, after which the spasm will disappear and the catheter can be withdrawn with ease.—*Brit. Med. Journal*.

Treatment of Ulcer of the Leg.

Schulze recently reported a series of cases of ulcer of the leg, which he had treated by various ointments containing camphor, and at the same time he criticized the use of "wine of camphor" unfavorably for two reasons; first, he stated, that it caused pain, and secondly, that the treatment was unsuitable for certain cases. Walbaum (*Munch. Med. Woch.*, June 25th, 1901), writes that he had used camphor, and especially "wine of camphor" in cases of chronic ulcer of the leg, and has not met with a single instance where it failed to heal the wound up completely. He has never heard a patient complain that the application was painful. The method which he employs is the following: The leg is well washed and rubbed with soft soap and water, and then a dressing moist with "acetic acid clay" is applied daily, until the exudation is less and nearly odorless. This usually takes two or three days only. He then applies the wine of camphor on a graduated compress, which is covered with a dry layer of gauze, and over that a piece of protective not quite reaching the edge of the dry gauze. The whole is enveloped in cotton wool and carefully bandaged. This has to be renewed every alternate day, and before it is put on again the leg is well rubbed with a pad of cotton wool soaked in lysol or carbolic acid solution. We find that the ulcer usually heals up with this treatment in three weeks.—*Brit. Med. Journal*.

The Prostate.

The large number suffering from diseases of the prostate gland, and the previous unsatisfactory methods of treatment, are justifiable reasons for surgeons continually devising new operative procedures and improving the old ones. During the past three or four years, since White first described his method of treatment by orchidectomy, and later R. Harrison, by vasectomy, neither of which proved as universally successful as their authors had hoped for, there appears to be a strong tendency

to attack the gland itself. Bryson, of St. Louis, in 1899, advocated the use of an abdominal incision, so that one or two fingers could be passed through this incision above the bladder, without entering into the peritoneal cavity and pressing the prostate down toward the perineum and bring the gland within easy access of the operator's incision through the perineum. He found that with care one could readily escape the peritoneum, and that it did not in any way increase the risk to life nor lengthen the period of convalescence.

Lately, Parker Syme has advocated the use of a rubber balloon inserted into the bladder through an incision of the membranous urethra, which is distended with air or water and used as a means of dragging the bladder down to the peritoneal wound. It has proven very successful in his hands, but some workers have found it not so satisfactory. Bryson quotes 119 operations, with a mortality of $12\frac{1}{2}$ per cent., and in his last series of cases this mortality is reduced to 7 per cent. He is of the opinion that even this mortality can be much further reduced.

Taking into consideration the amount of trouble caused by enlarged prostate, and the low mortality at present attending the operations, we feel satisfied that in the very near future there will be a more general advocacy of operations than has been before.

Treatment of Tetanus.

In recording the history of a case of severe tetanus, which was cured by intradural injection of tetanus anti-toxin, E. von Leyden (*Deut. Med. Woch.*, July 18th, 1901) briefly describes the development of what he considers to be the proper treatment of the disease. Von Behring introduced the serum with the belief that once introduced anyhow into the body, the results would be efficient, and therefore it was at first injected subcutaneously. The unsatisfactory results led to its application into the vascular system, and later into the cerebral dural cavity, but without the hoped-for results. It was found that in fatal cases of the disease, treated in one of these ways, the blood was incapable of producing tetanus in mice, although when not so treated it was capable of producing tetanus. On closer investigation, however, it was demonstrated that the spinal cord and the cerebro-spinal fluid contained tetanus toxin, and when these were injected into mice, the animals died of tetanus. Thus the subcutaneous or intravenous injection of antitoxin, although capable of rendering the toxin in the blood harmless, was powerless to attack the toxin in the cerebro-spinal fluid. Von Leyden's assistant, Jacob, therefore suggested and applied the method of intradural injection, and the trial

case recovered. Other observers also attempted this method, and Von Leyden finds reports of five cases which died and five which recovered. His new case had a temperature of 105.8° F., a temperature which, he says, is always followed by a fatal issue in tetanus. The treatment was begun on the third day, and consisted in an intradural injection of 5 c.cm. of antitoxin (equal to about one-quarter gram. of solid antitoxin, and therefore about one-eighth of the usual subcutaneous dose) after 10 c.cm. of the fluid had been withdrawn, together with injections of morphine, and the exhibition of chloral. The temperature sank on the same day to 101.3° F., and on the next day to 99.3° F. The fall in the temperature he regards as a distinctly life-saving result of the antitoxin. On the third day of treatment the injection was repeated. Of the other interesting points in the case he points out that, (1) the patient had two years previously had a mild attack of "head" tetanus; this points to the inability of a given attack to protect against subsequent infection; (2) although working in a stable, no wound was present, and therefore the point of entry of the bacilli is unknown; and (3) no tetanus bacilli were found either in the vomit or in the blood. On the other hand, mice injected with his cerebro-spinal fluid slowly developed symptoms of tetanus, that is, after six days.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN AND J. O. ORR.

The Relation between Dental Affections and those of the Eye.

Some are inclined to doubt that affections of the teeth have much effect upon the eye. But Dr. G. H. Bicknell (*Western Medical Review*, Jan. 15th) deals clearly with the subject. The eye may be affected in two ways: (1) By reflex neurosis traversing the fibres of the fifth nerve; (2) Infections spreading by continuity of tissue.

The latter infections may result in simply an orbital cellulitis, subsiding in a few days without doing harm, or, if the infection be more severe, vision may be injured or even lost. And in some cases the infective process may travel to the cranial cavity, resulting fatally.

Infection from a diseased tooth reaches the orbital cavity usually in one of two ways: (a) By progressing under the periosteum on the anterior surface of the superior maxillary bone; (b) By first invading the antrum of Highmore, then the orbit, by passing through the thin orbital plate, or *via* the anastomoses of the vessels anteriorly.

The gravity of phlegmon of the orbit may be appreciated by considering the sixty-nine cases cited by Hermann. In thirteen of these, vision was very much reduced, seven became totally blind in one eye, and four died from brain abscess or meningitis. The author gives in detail three cases in his own practice, of whom two became totally blind in one eye and one died from brain abscess.

Reflex neuroses. These are classed as 1. Reflex irritation affecting striated and unstriated muscles; 2. Affecting the mucous membrane and cornea; 3. Affecting the optic nerve, retina, etc.

Taking the last condition first, a case is given in which severe attacks of toothache reduced the vision to mere perception of light. Extraction of carious teeth from the upper jaw restored the vision in both eyes. And similar cases are reported by other writers. On the other hand, Swanzy, one of the best authorities, says: "Reflex amblyopia is said to have been observed in connection with irritation of the fifth nerve, especially the dental branches; but I have not seen such a case and am skeptical about their occurrence."

In regard to reflex irritation producing corneal affections, Galezowski reports that in young children the cutting of the first teeth produces inflammation of the cornea and small ulcers. The most important reflex neurosis is, however, that in connection with the eye muscles. There may be produced paresis of any of them, but the one most likely to be affected is the ciliary muscle, causing weakness of accommodation. Many cases are on record of poor sight due to this cause being cured by extraction of carious teeth from the upper jaw. Schmidt found, in ninety-two patients with toothache, seventy-three who had restriction of accommodation on the affected side.

Sympatheticotomy in Simple Optic Nerve Atrophy.

In that dreaded disease glaucoma, much benefit has resulted in certain cases by a new operation, namely, the removal of the superior cervical ganglion of the sympathetic system. In glaucoma the tension of the eye is raised (producing hardness of the eye-ball). The operation spoken of reduces intra-ocular tension, thus allowing dilatation of the vessels in and around the eye. A consideration of the good results of the operation in glaucoma led Dr. E. C. Renaud (*St. Louis Medical Review*, February 1st, 1902) to believe it might be beneficial in simple atrophy. His results are embodied in a paper.

The essential idea of the article is that the vaso-dilating result of the operation should be beneficial to the atrophying nerve, increasing its nutrition, in a similar manner, but to a greater degree than nitro-glycerine. And nitro-glycerine,

although of benefit in many of these cases, has but a temporary effect, ceasing when the medicine is omitted, while the operation promises permanent results. The author cites three cases. In the first, atrophy of the left nerve was complete, but not so far advanced in the right. The right ganglion was removed. Prior to the operation the vision in this eye was only perception of light. In five months the vision improved somewhat, he being able to distinguish large objects dimly at eight feet. The second case was done in January, 1900. The vision in the affected eye before the operation was counting fingers at six feet; in four and a-half months he could count fingers at eight feet. The third case was more striking. He was blind in the right eye from corneal opacities. In 1900 he began to lose sight in the left. His family physician considered this due to tobacco and alcohol, putting him on suitable treatment. Being under this treatment for eight months, and no benefit resulting, he consulted the author, who diagnosed simple optic nerve atrophy, not complete. For this both right and left superior cervical ganglia were removed. Previous to operation vision was one-twentieth of normal, in two and a-half months it was two-fifths of normal.

The author concludes that the operation is only of value in beginning or incomplete atrophy, and also recommends that both superior ganglia should be removed in every case, even if the atrophy is unilateral.

The same remark may be made in regard to glaucoma—the author thinking that the unsuccessful operations for that disease might have been successful had the double operation been done.

The posterior route for the operation is preferred (making the incision along the posterior border of the sterno-mastoid). He also advises to tear the ganglion from its attachments, rather than cutting it out.

Clouding of the Cornea due to the Excessive Application of Cold.

Dr. E. L. Meirhof (*New York Medical Journal*) reports two cases which should be noted. The first was an infant ten days old, which had a slight discharge from the eyes when five or six days old. The family physician, fearing gonorrheal ophthalmia, lost no time in applying the usual measures, among which was the constant application of ice-cold pledgets. After three days of this treatment, the cornea were seen to be cloudy, and Meirhof was called in. He found the lids not thickened, and no swelling or redness of the bulbar conjunctiva. Thinking that the nutrition of the cornea might have been interfered with by too much cold applied to the lids, which were not

thickened, he advised gentle heat to be applied, and in a few days the corneæ were clear. The second case was a similar one.

The value of ice in the early stages of ophthalmia neonatorum is undoubted, but it should be cautiously used, especially where there is no swelling of the lids to protect the cornea.

J. T. D.

PEDIATRICS.

IN CHARGE OF ALLEN BAINES, W. J. GREIG, AND W. B. THISTLE.

Malformed Children.

M. Schwab holds that malformed children are likely to be born of mothers who have been attacked by variola during pregnancy. He gives a history of a case of congenital hydrocephalus where the mother had passed through a severe attack of smallpox (whether early or late in pregnancy is not stated). He also holds that attacks of the other infectious diseases produce, or are likely to produce, malformed children.

Pulmonary Tuberculosis with a Cavity Formation in a Nursing.

The child was a foundling, of whose parents nothing was known. After admission it did well for a time, and for a couple of months gained in weight. Then the weight began to decline. It was aganosed, had constant dyspnea, and died in four weeks. Nothing could be discovered by auscultation, except the day before death, a few sub-impotent rales on both sides.

Autopsy showed the lungs to be studded with granulations, large and small, with some points of broncho pneumonia. In the lower lobe of the right lung was a typical cavity, the size of a large nut, broken down and containing pus. Bronchial glands enlarged. Miliary tubercles in the spleen, and mesenteric glands enlarged. The other organs were normal. Tubercular cavities are exceedingly rare in infants of this age (three months).

Human and Bovine Tuberculosis, with Special Reference to Infection of the Alimentary Canal in Children.

Blackader, *Mich. Med. Journal*, quoting numerous observations by foreign and American authorities, and his own experiences, says that the profession has unquestionably exaggerated the danger of infection through cow's milk. Unless all other sources of infection can be excluded, milk, even if from tubercular cows, must not be considered as the source of infection.

All authorities agree in the rarity of primary tubercular feci in the intestines.

Tuberculosis in children begins to increase rapidly at the time when the child usually begins to creep. It is most frequent between that time and $2\frac{1}{2}$ years, during the greater part of which they are on the floor, and have their greatest tendency to putting everything into the mouth.

The paper is not suitable for accurate condensing. All interested should, if possible, obtain it and read it for themselves. I would like to see Dr. Adami's tentative suggestion taken up and carried out to an experimental ending. It seems to me the most nearly likely to be the true explanation, although I have never seen a case in which I thought, however mild it might have been when seen, or however slow its progression, that it could be traced to infected milk, that is milk from a tuberculous cow. Nor have I been able to find any cases in which I was satisfied that all other means of infection could be eliminated.

It is interesting to note here the conclusion that Freer and Volkland, of Munich, have arrived at, that scrofulous glands and tuberculosis of the very young are due to dirt. Dr. Endonnis has also verified this by examining young infants, and finding tubercle bacilli on the hands and in the noses of those at the critical age, who were playing around floors of rooms in which there were or had been tubercular patients.

Old Enlargement of Tracheo-Bronchial Glands in Tubercular Meningitis.

In *Progres Medical*, Hanshalter and Krukling both state that 66 times, or in every case of 66 autopsies on cases of tubercular meningitis, the tracheo-bronchial glands have been more or less enlarged, and usually with pulmonary lesions associated. They give a number of points very significant as showing these glands to be the starting point of the meningeal infection.

Cirrhosis of the Liver with Arcites, but without Jaundice, in a Child of 8 Years.

The child was of alcoholic parentage, but no direct alcoholic causation could be traced. The liver extended three finger-breadths below the right costal margin. There was great ascites and some vomiting. The other organs showed nothing abnormal. The diagnosis rested between cirrhosis and tuberculosis of the liver and peritoneum. Operation disproved the latter, and the autopsy showed cirrhosis, with considerable increase in volume of the liver.

Editorials.

A DOMINION MEDICAL COUNCIL.

Dr. Roddick, when speaking about his proposed scheme for the establishment of a Medical Council in Canada on various occasions, told us, among other things, that under the existing systems of provincial registration, Canadian physicians are debarred from entering the extensive field of medical employment in the various departments of the Imperial service, such as, for example, the Army and Navy, the Indian medical service, the Colonial medical service, medical service under the Board of Trade, including ships' surgeons, etc., also from employment as sanitary officers in the United Kingdom. Notwithstanding recent legislation increasing the term of student life from four to five years, and change in school regulations calling for increased fees, we are now manufacturing more doctors of medicine in Canada than ever before, and we should have a bigger field for our graduates to work in in the whole British Empire. Such is one of the objects of the proposed bill.

Dr. Roddick, when introducing his bill to Parliament, February 26th, explained that since last year he had met the profession of this country at a convention, held in Winnipeg, and found that the measure was heartily endorsed by them, with some amendments. These amendments provided that the provinces should be represented on the Council in proportion to the number of medical men in each province, and that the ten universities in Canada should also have representation in the Council. He had reason to believe that the medical men in the House were practically unanimous in support of the measure, and after it had passed its second reading, he hoped that it would be referred to a special committee, consisting chiefly of medical men, with one or two legal gentlemen, who would have an opportunity of studying the subject and conferring with the delegations that might come from the different provinces to suggest amendments.

NEW BUILDING FOR MEDICAL FACULTY, UNIVERSITY OF TORONTO.

It has been found necessary for the Medical Faculty of the University of Toronto to make further provision for the greatly increased number of students now in attendance. A deputation from the Medical Faculty has had some interviews with the Government about the matter. It was suggested by Hon. Mr. Harcourt, Minister of Education, that the trustees of the University should advance the necessary amount, about \$125,000, and that the Medical Faculty would pay four per cent. annually on that sum. This would leave the latter free to rent a portion (about one-third, it is hoped,) of the building to the Arts Faculty if they chose, and would render unnecessary any assistance from the Government. We understand this scheme has now been approved of by both the Trustees and the Government. It has been decided that the new building will be erected close to and north-east of the Biological building.

OZONE AND PHTHISIS.

Among the many modern "cures" for tuberculosis the administration of ozone has recently caused probably the greatest interest among physicians in Toronto. One of the reasons for this was evolved out of the peculiar and grossly unprofessional advertising in the lay press by the Ramage Company. As two reputable physicians of Toronto are closely connected with this company they have suffered, to some extent, through the ill feeling that has been aroused among their medical *confrères*. We are glad to publish in this issue a letter from Drs. Walker and Cotton, which explains itself. We accept it as a vindication of these gentlemen, as far as their personal honor is concerned. When doctors, however, become members of, or closely connected with, companies who are trading in medical science in a purely mercantile way, we think they are taking great risks in a large proportion of cases. The layman, especially when a shrewd, successful merchant, has but little respect for our code of ethics.

The Ramage process derives its name from Dr. Ramage, of Cleveland, Ohio, who is recognized in his own country as a chemist of ability and good standing. He claims to have discovered a process which causes destruction of the micro-organisms of tuberculosis and the toxins formed by them by the action of ozone. Ozone in the past has been found so irritating that it could not be used in a very satisfactory way. It is claimed that by the Ramage process the ozone is made unirritating, and that its administration has a curative effect on tuberculosis. The necessary apparatus for its administration has been patented, but we understand that any one can buy the machine for \$700. What the virtues of the treatment are we know not, but our chemists in Toronto do not agree with Dr. Ramage in his contention that he administers pure ozone. Some think that it is really hydrogen peroxide that comes into contact with the lungs, the ozone merely acting indirectly. That, however, does not prove that the process is worthless.

The second aim in connection with this treatment is to give partially pre-digested concentrated proteids. We cannot now discuss this feature, but may say the idea is not new. Having in view some of the restricted selected diet cures, such as the Salisbury, the Milk, the Kumiss, the Whey cures, we think a long continuance of this proteid diet will knock out the liver long before it can benefit the phthisis. This is, however, merely a matter of opinion.

THE DOCTOR IN CIVIC AFFAIRS.

There exists in Chicago an organization of doctors, dentists and druggists, known as the D. D. D. Society. We learn from the *Chicago Record* that at its annual banquet, February 14th, the principal subject discussed was "The Doctor in Politics," especially as to his fitness for positions of public trust and responsibility, and his reprehensible lack of civic spirit and pride. Some of the speakers rebuked the doctors for their indifference to politics and civic affairs, and urged them to take a more active interest in questions and movements relating to the public welfare.

The *Record* goes on to say that the rebuke was timely and well deserved, and merits wider publicity, inasmuch as the doctor is under a greater obligation to actively interest himself in matters pertaining to local government, public education and other civic services than almost any other citizen in his community. His obligation is greater, because of his fitness for responsibility through education, high ideals of character, and the close relationship he sustains to the families and homes of the community in which he lives.

We appreciate very much the kindly expressions of opinion of the *Record* respecting our profession, and are willing to admit that the average doctor, in most countries at least, does not take as much interest in public affairs as he ought. At the same time we have to state the fact that a large proportion of the physicians of Canada do take a very active interest in matters pertaining to the public welfare. We know of no country in the world where so many physicians, in proportion to the population, are elected to positions of trust in our parliaments as in Canada. Nor do we know of any other country where such a large proportion of physicians take a deep interest in sanitary and general educational matters. In addition, quite a lot of us are willing to serve our country in Parliament, but have not yet been asked to do so.

CONVOCATION HALL FOR THE UNIVERSITY OF TORONTO.

The President of the Alumni Association of the University of Toronto desires to see a Convocation Hall erected by the graduates. Many, if not all the professors and lecturers of the various faculties of the University actively favor the scheme. Dr. Reeve, the President, has issued a circular letter to the graduates, as follows:

"You are doubtless aware that our *Alma Mater* has had no Convocation Hall since the fire, and that it is in great need of a large building for convocations and various academic gatherings, including social functions, extension lectures, concerts, etc., etc. It is strongly felt by many that not to have a place where the hundreds of her students in the faculties and different

colleges can rally and mix, and see and hear one another, deprives the University of an important means of promoting that *esprit de corps* which should prevail in every great institution, and animate the Alumni in after life. A well-designed Convocation Hall holding 2,000 would give added dignity, if not prestige, to the annual events, and would permit the presence in large numbers of patrons and friends, whom no institution can afford to exclude or ignore. It would also promote various academic interests, which rely in large part on the aid of a sympathetic public. Such a building will cost \$50,000, and there is good ground to fear that, unless the requisite money be supplied by Alumni and friends, years will pass ere the finances of the University would warrant the Trustees in devoting funds to such purpose. This is the most weighty appeal yet made to the Alumni. The project is, however, quite feasible, and only needs for its success a united and loyal effort on the part of graduates, undergraduates and friends. Let us be equal to the occasion, and justify the hopes of many whose eyes are upon us and who do not wish us to suffer by contrast. Devotion to our *Alma Mater* should be the mainspring of our action, but the efforts of those attached to other institutions may well prove an incentive. The completion and dedication of a suitable academic hall would form a most fitting and gratifying feature of the celebration of the semi-centenary of our University.

"The Faculties have already subscribed about \$6,000, members giving \$250, \$200, etc. The subscriptions hold if \$50,000 are promised, and they are payable in two instalments, June 1, 1902, and June 1, 1903. The Executive Committee feel that the best plan is for the graduates of the respective years in the several Faculties and of federated and affiliated institutions to work together. Your kind co-operation promptly given is most earnestly desired."

A new monthly journal, devoted to the specialties of gynecology, abdominal surgery, obstetrics and pediatrics, will shortly be established in New York by the following committee: Drs. Charles Jewett, J. Clifton Edgar, A. Palmer Dudley, Matthew D. Mann, H. J. Boddy, J. E. Jauvrin, G. H. Mallett and Clement Cleveland.

THE AMERICAN CONGRESS OF TUBERCULOSIS.

The third annual session of this Congress is announced to be held on the 14th, 15th and 16th of May, 1902, in the City of New York, in joint session with the Medico-Legal Society. There will be two sessions each day and no evening session, except on the 15th, when the banquet will be given. This will enable delegates from distant States and countries to enjoy the amusements and attractions of the city.

Arrangements will be made with railway companies for a reduced rate of fare, the details of which will be announced to the delegates.

In addition to the Vice-Presidents chosen at the sessions of May 15 and 16, 1901, the Executive Committee have authorized the appointment of three Vice-Presidents from each State, Country or Province, and an Honorary Vice-President from each. Under this authorization about seventy additional Vice-Presidents have been named who have already accepted, but in some of the Countries and States all of them have not yet been named. Of the Honorary Vice-Presidents all but two of the Provinces of the Dominion of Canada have accepted already, and six from governments. Among those who have accepted from the American States, already, five are Governors of States and others high public officers.

When completed these officials will be duly announced. There will be, aside from all papers of a miscellaneous nature, four symposiums, arranged each to occupy one session of the body, viz.:

1. Preventive legislation, embracing the social, municipal, and State aspects of tuberculosis.
2. Tuberculosis in its pathological and bacteriological aspects.
3. The medical and surgical aspects of tuberculosis.
4. The veterinary aspects of tuberculosis.

These will each be in charge of a committee, who will arrange for the opening papers, and for those who participate. These committees will be arranged with great care and duly announced.

A large number of the enrolled members have already announced the titles of their papers for the session of 1902, and a still larger number have sent their names to the Secretary, who will contribute papers and send the titles later.

The Presidents of Central and South American Republics, and all Governments on the American Continents, have been invited to send delegates and to name suitable persons to act as Vice-Presidents, and their men of science requested to enroll and contribute to the work of the Congress, many of whom are already represented by delegates. No attempt will be made to classify and arrange these until the programme can be announced,

but, if thought advisable, a preliminary announcement will be made, one month before the annual meeting, of the titles of papers and names of authors.

Those who were named as delegates by the Governors of States, or Medical or Scientific bodies, for the Session of 1901, are cordially invited to enroll for the Congress of 1902. The enrolling fee will be \$3, which will entitle the member to the "Bulletin of the Congress of 1902."

All medical bodies, and scientific or legal associations, or associations of the Bar, are invited to send delegates to the Congress, who will be given the rights of the floor and a vote at the session.

There will be named a Local Committee for the Session, of strong names, who will do everything in its power to make the occasion one of great interest and pleasure to enrolled members.

The enrolment is open to members of both professions in every State, County or Province on the continents of America, in the western hemisphere, and in American waters, and papers are promised and will be solicited from all who are interested, in foreign countries.

For details and enrolment, address Clark Bell, Secretary, 39 Broadway, New York City.

Professor Pestalozza, of Florence, on behalf of the Committee of Organization of the Fourth International Congress of Gynecology, begs to announce to the profession of Canada that the Congress will meet in Rome, from the fifteenth to the twenty-first of September of this year. The Committee of Organization consists of Professors Pasquali Morosani and Mangiagelli, who wish to extend a hearty welcome to their Canadian brethren. The subscription fee is five dollars for gentlemen, and two dollars for the ladies accompanying them. The treasurer is Dr. La Torre, 8 Via Venti Settembre, Rome. The subjects chosen for discussion are: (1) The medical indications for the induction of labor; (2) Genital tuberculosis; (3) Hysterectomy in puerperal septicemia; (4) Inflammatory changes in the neck of the uterus; (5) The surgical treatment of cancer of the uterus. It is the earnest wish of the committee to have a large attendance of gynecologists and obstetricians from Canada.

We direct our readers to the fine offers to secure a medical practice presented on another page of this journal by Dr. W. E. Hamill. Those wishing to buy should examine the list.

Personals.

Dr. James F. W. Ross, of Toronto, will return from the Bahama Islands and resume practice about April 1st.

Dr. Harry B. Anderson, of Toronto, started for New York March 10th, and will return about May 21st.

Dr. J. R. Lancaster (Tor. '95), who was practising for a time at Tilsonburg, has been appointed one of the resident surgeons, Grace Hospital, Toronto.

Dr. A. Gun, Durham, has been appointed associate coroner for Grey County, and Dr. William Logie, Sarnia, associate coroner for Lambton County.

Dr. A. D. McIntyre has been appointed resident surgeon, Kingston General Hospital, in the place of Dr. Grimshaw, who has gone to England to engage in post-graduate work.

Dr. J. D. Gibb Wishart spent the first week of this month in New York, attending the meeting of the eastern section of the American Laryngological, Rhinological and Otological Society, and visiting the hospitals there and in Philadelphia.

DR. HARBOTTLE'S RELEASE REFUSED.

The Government, on the recommendation of the Minister of Justice, has decided not to accede to the prayer of the petitions which have recently been presented asking for the release of Dr. Harbottle, of Burford, who was sentenced to twelve months' imprisonment for shooting a farmer named Stewart. Dr. Harbottle, it will be remembered, was credited with having strong pro-Boer sympathies and expressing them pretty freely. This gave offence to some of the residents of Burford, and the doctor was subjected to various indignities in consequence. On the day of the shooting Stewart was guilty of behavior which Dr. Harbottle regarded as insulting, and, aroused to a pitch of exasperation, the latter drew a revolver and discharged it. Dr. Harbottle says he did not intend to hit his tormenter, but simply to scare him, but owing to Stewart's dodging his head was struck by the bullet. The doctor asked for trial before a Judge, and a twelve months' sentence was imposed. The Minister of Justice recognizes that there were extenuating circumstances, but takes the ground that the drawing and discharging of a revolver at a fellow-citizen constitutes a grave offence against the law.

Obituary.

JAMES McLAREN, M.D.

Dr. McLaren died at Deer Park, Toronto, March 6th, 1902, aged 78. He received his medical education at Queen's College, Kingston, but had not been engaged in practice for many years before his death.

GEORGE WYLIE JACKES, M.D.

Dr. Jackes, of Eglinton, died suddenly, of apoplexy, at his home, March 7th, 1902, aged 51. He graduated M.B., 1872, and D.M., 1888, in the University of Toronto. He was one of the best known physicians north of Toronto, and was highly respected by all classes of the community in and about Eglinton.

PAUL F. MUNDE, M.D., LL.D.

Dr. Mundé, an eminent gynecologist of New York, died February 7th, of cardiac disease, aged 56. He graduated M.D., Harvard Medical School, in 1866. He then studied abroad for some years and took his degree as Master in Obstetrics, in Vienna, in 1871. After serving in the Franco-German war he commenced practice in New York, where he soon attained distinction as a gynecologist and consultant in obstetrics. He was editor of the *American Journal of Obstetrics* from 1874 to 1892.

JOHN COVENTRY, M.D.

Dr. Coventry, of Windsor, was one of the best known physicians in Western Ontario. He died at his home, February 22nd, aged 61. He graduated M.D., Buffalo, in 1863, and M.D., Victoria, in 1866. He was for many years Medical Health Officer of Windsor, and was also engaged in general practice. He was in many ways prominent in civic affairs, and was one of the most highly respected citizens of his city. To his many friends who knew him as a bright, strong and busy man, the sudden announcement of his death caused a great shock. He was attacked by pneumonia February 17th, and died on the fifth day after.

JOSEPH A. FIFE, M.D.

Dr. J. A. Fife, one of the oldest practitioners of Peterboro, Ont., died there on the morning of February 12th. Dr. Fife was born in the County of Peterboro in 1838 and received his medical education at the Toronto School of Medicine and his degree at Victoria University, Toronto. Subsequently he took a post-graduate course at Bellevue. During the American civil war he served for two years in the Northern Navy as surgeon.

RICHARD MAURICE BUCKE, M.D.

Dr. Bucke, Superintendent of the London Asylum for the Insane, died February 19th, aged 65. The circumstances surrounding his death were particularly sad. About 11.30 p.m. he stepped out on his verandah, slipped on the ice, fell on the back of his head, and was instantly killed.

He received his medical education in McGill, graduating M.D. in 1862, being gold medallist of his year. After spending two years at post-graduate work in London and Paris, and one year in California, he engaged in general practice in Western Ontario for eleven years. He was appointed Medical Superintendent of the Asylum for Insane, Hamilton, in 1876, and was transferred to London in 1877. He was a man of singular ability in many directions, and at the same time possessed social qualities that endeared him to his large circle of friends. He was known to most students of "Leaves of Grass" as a warm, stalwart, life-long friend of Walt Whitman. He had the largest and best Whitman collection in the world. His contributions to periodical literature were numerous, and he was engaged for the last ten years on two works, one on "Cosmic Consciousness," and another on the Bacon-Shakespeare question, which will probably be published shortly.

Book Reviews.

First Aid to the Injured and Sick. By F. J. WARWICK, B.A., M.B. Cantab., Associate of King's College, London; Surgeon-Captain, Volunteer Medical Staff Corps, London Companies, etc.; and A. C. TUNSTALL, M.D., F.R.C.S. Ed., Surgeon-Captain Commanding the East London Volunteer Brigade Bearer Company; Surgeon to the French Hospital and to the Children's Home Hospital, etc. 16mo volume of 232 pages and nearly 200 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$1.00 net. Toronto: J. A. Carveth & Co., Canadian Agents.

This volume of practical information is intended as an aid in rendering immediate temporary assistance to a person suffering from an accident or sudden illness until the arrival of a physician.

The authors, fully appreciating the urgency of the subject, have succeeded in producing an admirable work of practical emergency procedures, and they have couched it in such clear language that even those unfamiliar with the science may easily grasp the meaning intended.

It will be found a most useful book of ready aid, and of invaluable service, not alone to nurses, railway employees, etc., but also to the laity in general, as a book of indispensable first aids.

An American Text-Book of Pathology. Edited by LUDVIG HERTZEN, M.D., Professor of Pathology, Rush Medical College, Chicago; and DAVID RIESMAN, M.D., Professor of Clinical Medicine, Philadelphia Polyclinic. Handsome imperial octavo of 1,245 pages, 443 illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$7 50; sheep or half morocco, \$8.50 net. Toronto: J. A. Carveth & Co., Canadian Agents.

The importance of the part taken by the science of pathology in the recent wonderful advances in practical medicine is now generally recognized. It is universally conceded that he who would be a good diagnostician and therapist must understand disease—must know pathology. The present work is the most representative treatise on the subject that has appeared in English. It furnishes practitioners and students with a comprehensive text-book on the essential principles and facts in general pathology and pathologic anatomy, with especial emphasis on the relations of the latter to practical medicine. Each section is treated by a specialist who is thoroughly familiar with his particular subject, and can best frame the theories and conclusions in an authoritative form. The illustrations, which are nearly all original, and of which sixty-six are in colors, are unsurpassed in beauty by those in any similar work in the English language. In fact the pictorial feature of the work forms a complete atlas of pathologic anatomy and histo-

logy. Among the contributors to this volume are Lewellys F. Barker, H. D. Beyea, Richard C. Cabot, Wm. S. Carter, Joseph Collins, Ludvig Hektoen, Ward A. Holden, Henry F. Lewis, Joseph McFarland, Louis J. Mitchell, Frank H. Montgomery, Albert G. Nicholls, A. P. Ohlwaecher, David Riesman, Joseph Spalding, A. A. Stevens, Victor C. Vaughan, J. Collins Warren, and Alfred S. Warltun.

Essentials of Physiology. Prepared especially for students of medicine; and arranged with questions following each chapter. By SIDNEY P. BUDGETT, M.D., Professor of Physiology, Medical Department of Washington University, St. Louis. 16mo volume of 233 pages, finely illustrated with many full-page half-tones. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$1.00 net. Toronto: J. A. Carveth & Co., Canadian Agents.

This work aims to furnish material with which students may lay a broad foundation for later amplification, and to serve as an aid to an intelligent consultation of the more elaborate textbook. An important feature is the series of well-selected questions following each chapter, summarizing what has previously been read, and at the same time serving to fix the essential facts in the mind. Nearly all the illustrations are full-page half-tones, and have been selected with especial thought of the student's needs.

American Edition of Nothnagel's Encyclopedia. Variola (including Vaccination), by Dr. H. Immermann, of Basle. Varicella, by Dr. Th. von Jurgensen, of Tübingen. Cholera Asiatic and Cholera Nostras, by Dr. C. Liebermeister, of Tübingen. Erysipelas and Erysipeloid, by Dr. H. Lenhartz, of Hamburg. Whooping Cough and Hay Fever, by Dr. G. Sticker, of Giessen. Edited, with additions, by SIR J. W. MOORE, B.A., M.D., F.R.C.P.I., Professor of the Practice of Medicine, Royal College of Surgeons, Ireland. Handsome octavo volume of 682 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$5.00 net; half morocco, \$6.00 net. Toronto: J. A. Carveth & Co., Canadian Agents.

The articles included in this volume treat of a number of diseases second to none in importance, whether regarded from the standpoint of preventive medicine or as the cause of widespread sickness and death. Although the excellence of the German work and the detailed and comprehensive manner in which the respective authors had dealt with their several subjects left comparatively little to be added, the editor has not hesitated to amend the text whenever necessary, and has also embodied the results of his personal experiences, gained during a varied practice extending over thirty-three years.

One of the most timely articles included in the work is that on variola, including vaccination and variolation. Dr. Immermann's monographs on these subjects, now of vital interest, especially in the United States and Great Britain, have probably never been equalled for circumstance of detail and masterly argument.

The other articles, each by a German specialist of recognized authority, are also skilful expositions of the particular diseases under discussion. The entire volume being edited by a specialist of acknowledged ability, the work, it will be seen, has been brought precisely down to date. It is, indeed, a magnificent contribution to the literature of medicine.

Progressive Medicine. A quarterly digest of advances, discoveries and improvements in medical and surgical sciences. Edited by H. A. HARE, M.D., and H. R. M. LANDIS, M.D. Vol. iv. December 1901. Philadelphia and New York: Lea Brothers & Co.

This volume deals with diseases of the digestive tract, genito-urinary diseases, syphilis, surgery of the extremities, diseases of the kidneys, physiology, hygiene and therapeutics. This series of quarterly volumes is now well known. This volume is up to the standard. It contains much useful information, and can be safely recommended to medical practitioners. The make up of the volume is all that could be desired.

The Roentgen Rays in Medicine and Surgery, as an Aid in Diagnosis and as a Therapeutic Agent. Designed for the use of Practitioners and Students. By FRANCIS H. WILLIAMS, M.D. (Harv.), Graduate of the Massachusetts Institute of Technology; Visiting Physician at the Boston City Hospital; Fellow of the Massachusetts Medical Society; Member of the Association of American Physicians; Member of the American Climatological Association; Fellow of the American Association for the Advancement of Science, etc. With 391 illustrations. New York: The Macmillan Co. London: Macmillan Co., Limited. Toronto: G. N. Morang & Co.

Dr. Williams is one of the pioneer workers in this subject, who has devoted a great amount of time to overcome many of the difficulties that were present in the early days, and has accomplished much for which the profession owe him their deepest thanks. He has approached all the questions from an unbiassed and scientific standpoint, and has made the best of his opportunities in presenting the subject. The volume is most comprehensive, comprising 650 pages, which presents the subject from its beginning to the present day. He deals elaborately with the nature and properties of the rays and the appliances that are necessary for their production; he describes the construction of the appliances so that one is made acquainted with the mechanism of the instruments that he has to handle. He has used both the static machine and the coil, and believes that for greatest utility and certainty of work the coil is superior to the static machine. He prefers the static machine in work on the chest, where the screen is used. The subject of tubes is handled in a most admirable manner, and the numerous designs thoroughly reviewed. The advantage of particularly constructed tubes is well pointed out

and conclusive reasons adduced for their use. All the descriptions are given with the idea of explaining in a simple way the technique of their construction and the various methods of increasing and decreasing their vacuum. He does away with all misleading terms. He explains that "high and hard" tubes and "low and soft" tubes are the same, and that each refers to the degree of exhaustion: he speaks of them all as one kind of tube, and their exhaustion is referred to by the length of spark gap necessary to give the desired results. He then deals with the different parts of the body in which the use of the X-rays as an aid to diagnosis is concerned. In the thorax he very clearly points out that the X-ray is a new and valuable aid, that it should be used in conjunction with all other aids that we possess, that it is by no means to be considered as a single diagnostic agent, but in conjunction with all other aids should be in common use. He believes, and very clearly points out, that phthisis may be discovered in an exceedingly early stage, even before the general symptoms of cough, etc., are manifest. He believes that until we can secure instantaneous photographs, however, the screen is the most useful agent in work on the thorax. In diagnosis of aneurisms, displacement of the heart, pneumonia, and effusions into the pleural cavity, the greatest advantage is obtained by the use of the X-rays. In the abdomen the use of the X-ray is by no means as advantageous as it is in the thorax. The advancement that is being made in the ability to control the penetration of the X-ray, and vary the same, will undoubtedly very soon place the work in the abdomen much further ahead than it is to-day. The diagnosis of calculus in the kidney is rapidly approaching a scientific basis, yet to-day there still remains uncertainty when no shadow is produced. This will be cleared up as soon as we are more thoroughly acquainted with the degree of resistance the many varieties of calculi offer to the rays. A large portion of work is devoted to the therapeutic value of the X-rays in the treatment of certain skin diseases—cancerous, tubercular, etc., and the chapter is very replete with the good work done in this branch. Originally, the use of the X-rays was supposed to be of advantage mainly to the surgeon, and Dr. Williams has left this aspect of the case to be considered last in the book. He is very explicit about the possibilities of misconstruing the X-ray photograph, and points out the errors that one may fall into in making these examinations, and methods of escaping them. We feel that this work is one that all interested in its study should possess, and those who do not use X-rays themselves, and are not equipped, should have the book for reference to show the many advantageous aids that it lends to diagnosis. The book is written in a style that makes its

reading exceedingly pleasant, and the description of scientific construction is so nicely done that its reading is a pleasure. We congratulate the author on having secured so competent a firm to publish the volume, and desire also to congratulate them on the beautiful manner in which they have produced this volume. The work is handled in Canada by Messrs. G. N. Morang & Co., the Canadian representatives of Macmillan & Co.

The Pathology and Treatment of Sexual Impotence. By VICTOR G. VECKI, M.D., third edition, revised and enlarged. 12 mo. 329 pages. Cloth, \$2.00. Philadelphia and London, Eng.: W. B. Saunders & Co. Toronto: J. A. Carveth & Co.

The subject of impotence is one of the most difficult to treat of, because of the peculiar amount of matter that must be discussed, which ordinarily one would not choose to see in print. It is a wrong idea, however, even if the discussion involves freely talking of these subjects, to slightly refer to the work. No subject is of more importance, because impotence not only involves the immediate sufferer but those to whom he has been bound for life. To treat of the subject intelligently one should be able to understand the many phases which the condition involves and arises from. To have this matter presented as it is in the volume under review is really a matter of congratulation, for the author, while plain and true to nature, never in the slightest departs from the truly scientific method of dealing with the subject. We can thoroughly recommend it to the profession, and feel assured that they will greatly benefit by a careful perusal of its contents. Any author who writes on this subject may be misunderstood, but surely in our profession we should be able to read a volume like this and appreciate its real merit, without ascribing wrong motives to the author.

Venereal Diseases. A manual for practitioners and students. By JAMES R. HAYDEN, M.D., Chief of Clinic and Instructor in Venereal and Genito-Urinary Diseases of the College of Physicians and Surgeons (Columbia University), New York; Assistant Visiting Genito-Urinary Surgeon to Bellevue Hospital. Third and revised edition. Illustrated with sixty-six engravings. Philadelphia and New York: Lea Brothers & Co.; Toronto, Ont.: J. A. Carveth & Co., Canadian agents.

In this volume the author has collected together a great amount of good advice, and much advice that is not found in other and larger treatises. We feel glad to see him illustrate and advise the use of the blunt syringe and discontinue the use of the old long nozzle glass syringe. The description of the method of using an injection is clear, short and concise, and will alone repay one for purchasing the work. We think his use of the clamp for conversion is out of date and should

be omitted. A clamp in the operation is a nuisance. We could possibly find a few other points that would be better omitted, but on the whole the subject is admirably treated, and the volume so arranged that it is one of ready and reliable reference. The author has had an extensive experience, and has made use of it in writing this work. That the work has passed through three editions in such a short space of time is of itself a most favorable recommendation. It is very neatly gotten up, and of a convenient size for carrying about to be read at odd leisure moments.

A Text-Book of Pharmacology and some allied sciences—Therapeutics, materia medica, pharmacy, prescription-writing, toxicology. By TORALD SOLLMANN, M. D., Assistant Professor of Pharmacology and Materia Medica in the Medical Department of Western Reserve University, Cleveland, Ohio. Illustrated. Philadelphia and London: W. B. Saunders & Co. Toronto: J. A. Carveth & Co. Price, \$3.75. 1901.

The title of a work such as this usually kills it, as far as the practising physician is concerned. It is a subject given the go-by, as much as possible, in the schools, and therefore not understood, even a little bit, when school days are ended. That this is due to the distinctly medical way in which these subjects are taught there is no doubt, this method of teaching leading to the idea that they are of no practical value. The author has evidently come to this conclusion, and has succeeded in writing a work that reads almost like a Practice of Medicine, as far as ease of reading and understanding what is read is concerned. Students, druggists and physicians will find this an extremely useful book, and if physicians and students of medicine knew how easy and interesting Dr. Sollmann has made these subjects, they would at once proceed to explore what, to them, is usually a *terra incognita*; and, once the first step is taken, they would find so much to interest them and which was unknown, that they would be through before they knew it. It is not often that we wax enthusiastic over any book, but having had experience both as student and teacher, we feel it due to the author to commend this work highly.

A Treatise on Smallpox.

A very timely treatise on smallpox, to sell at \$3.00, is announced for publication early in April, by J. B. Lippincott Company. It is written by Dr. George Henry Fox, Professor of Dermatology in the College of Physicians and Surgeons, New York City, with the collaboration of Drs. S. Dana Hubbard, Sigmund Pollitzer and John H. Huddleston, all of whom are officials of the health department of New York City, and have had unusual opportunities for the study and treatment of this disease during the present epidemic. The work is to be in

atlas form, similar to "Fox's Photographic Atlas of Skin Diseases," published by the same house. A strong feature of the work will be its illustrations, reproduced from recent photographs, the major portion of which will be so colored as to give a very faithful representation of typical cases of variola in the successive stages of the disease, also unusual phases of variola, vaccinia, varicella and diseases with which smallpox is liable to be confounded. These illustrations number thirty-seven, and will be grouped into ten colored plates, $9\frac{1}{2} \times 10\frac{1}{4}$ inches, and six black and white photographic plates. The names of Dr. Fox and his associates assure the excellence of the work, in which will be described the symptoms, course of the disease, characteristic points of diagnosis, and most approved methods of treatment.

Correspondence.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW :

DEAR SIR.—An explanation is due the profession regarding the articles appearing in the Toronto papers concerning the Ramage process for the treatment of phthisis, etc.

The Ramage Company asked our permission to permit the reporters to see the machines, and asked us to demonstrate the process. No one regretted more than we did seeing the articles as published the following morning, as we had requested the reporters merely to refer to the process, as we did not desire that anything unprofessional should appear: but in their enthusiasm, they entirely overlooked our instructions. Yours truly,

JAMES H. COTTON,
HOLFORD WALKER.

It is said that the pus of gonorrheal vaginitis is always alkaline. If for any reason a microscopical examination cannot be made, the use of a strip of litmus paper will, therefore, give a fairly accurate decision.

It is well to remember that in bullet wounds pain is not usually a very marked symptom. If the wound is received during a period of excitement, it may give hardly enough pain to cause the subject to know he has been wounded. If there is any pain, it is apt to last for a short time only. This absence of suffering may mislead the surgeon into a failure to recognize the gravity of the injury.

Selections.

The Surgeon's Responsibility for Post-operative Conditions.

It is difficult for a physician to clearly express the views which follow without seeming to reflect upon the skill, courage, and training of the surgeon. Such is not the intention of the present article, but it is written because we believe that statistics in regard to operative recoveries produce erroneous conclusions as to the value of the operation itself in many instances. We are, of course, aware of the fact that, under certain circumstances an operation is imperatively needed, and must be performed, be the result what it may, in an effort to save life; and no can be beyond the writer in his admiration of the skill and bravery with which surgeons operate at such times. There are, however, a certain number of cases in which operations are performed for the relief of conditions which are not sufficiently pressing to endanger life, but which may be productive of very considerable annoyance, discomfort and pain. Not infrequently the condition is one which renders the patient willing to submit to an operation, and she relies upon the superior judgment of her physician to determine the degree of relief which she will obtain as a result of the operative ordeal. In some instances much relief follows. But it has been our experience that in a certain number of cases what might be called "substitution symptoms" are developed, so that the patient's condition, while relieved in one direction, is made worse in another, and therefore the operation is of no material benefit to her. Probably most physicians of experience will agree with the writer in the statement that a very large number of women who have been subjected to abdominal section for various causes are more or less invalids for the rest of their days, and regard the operation as having been a failure, not because the particular trouble for which the operation was performed has not been relieved, but by reason of the development of associated symptoms which made their lives as unbearable as before. Thus, we have in mind at the present time the case of a woman from another city, who was operated upon because she had a chronic inflammation of her Fallopian tubes which gave her much discomfort and pain, but was not severe enough in any way to jeopardize her life. So far as the operation was concerned, recovery was rapid and complete. But so far as her general condition is concerned, she is now worse than before. The pelvic pain after the operation was worse than before it was performed, and finally became so severe that a second abdominal section was carried out, with the result that the surgeon told her that he had "found and removed a buried unabsorbed ligature," but although she passed through this second operation successfully, she is still suffering as much pain

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SMALLPOX AND VACCINATION.

BY JOHN CAVEN, M.D., TORONTO.

Under the head Preventable Complications and Accidents of Vaccination, are included all such as have no necessary connection with cowpox, *i.e.*, are not due to either the essential qualities of vaccine lymph or the peculiarities of the individual affected. It is, perhaps, not customary to consider the acute infectious diseases—scarlatina, for example—during the incubation stage of which vaccination may have been performed, as *preventable* complications. In the strict sense, however, they are so. They are in no way related to vaccinia, except in time and individual, and no amount of vaccination, apart from an exposure to the specific infection of these diseases, could have any influence in causing their development. Fortunately, the results of vaccinating those sickening of infectious diseases are not disastrous, even though patients may be caused more discomfort and suffering thereby, and in some instances it may even be proper to proceed with the operation as the lesser of two evils. There are, however, other preventable complications which have a definite connection with vaccination and which may be serious enough in themselves. They call for a closer consideration, because of the fact that they can be almost certainly avoided by use of proper precautions on the part of physician and patient.

Infection with the diseases in question may come either at the time of vaccination or subsequent to it: it may come either at the hands of the operator—by instrument or lymph—or after the case is practically from under his control. Of these preventable complications of vaccination, syphilis, erysipelas,

septicæmia, tetanus, leprosy and tuberculosis have been, or are, the most important.

Syphilis and Leprosy.—When arm-to-arm vaccination with humanized lymph was the prevailing practice, the danger of infection by syphilis was not an imaginary one, and we have records of not a few deplorable cases. At the present time no one would think of arm-to-arm work in the wide sense of the term. Some, still, after vaccination of one member of a family with bovine lymph, vaccinate others in the same family from the first. Even in so limited a use as this of the humanized lymph there may be danger, unless personal history of the vaccinator be completely known. It is claimed that the results of this method are better than where bovine lymph alone is employed. The weight of opinion seems to be against this view. Cattle being immune to syphilis, bovine lymph cannot convey the disease. Syphilis may therefore be spoken of as a danger of the past, where modern methods are carried out. Leprosy falls into the same catalogue with syphilis, since cattle are absolutely immune to it also.

Tuberculosis.—Both clinical and experimental work prove that danger of transmission of tuberculosis in any degree to be so small—even where arm to arm vaccination was the custom—that Nothnagel is able to say there has been no well authenticated case recorded. C. Fox has seen lupus three times in scars of vaccination, whether due to it or not it is impossible to determine. The care taken in the choice of animals from which lymph is prepared by modern methods, effectually removes all risks of conveying disease by it, even should Koch's belief, that bovine tuberculosis cannot originate the human form, be found incorrect.

Erysipelas.—Erysipelas and septicæmia, with its various localized manifestations (*e.g.*, phlebitis, phlegmon, metastatic abscesses, etc., etc.), have been amongst the common and most fatal complications of vaccination, and they occur in all degrees of severity. So recently as in the ninth edition of the *Encyclopædia Britannica*, the statement is made in an article on vaccination that erysipelas, more or less marked, is a normal feature of its course. Were it not that the article is written by one who is evidently an anti-vaccinationist it would be difficult to understand his position. That the erythematous areola surrounding a typical vaccine pock is to be considered erysipelaton, is simply to arbitrarily extend the term so as to include whatever one wishes. Erysipelas, leaving the question of causation to one side, has a definite clinical history which distinguishes it from other infections, and this history is quite different from that of normal cowpox as seen in the human species. It would be strange, moreover, that a disease to which

calves, at any rate, are not susceptible, should be communicated by lymph, which is a product of a quite different affection in them.

Erysipelas and septicemia should be thought of as in no wise different from the same infections when occurring apart from vaccination. Both diseases have been so largely banished from modern surgical practice that their presence causes the surgeon to revise carefully his technique. So it also ought to be in vaccination cases. It does not follow that all cases are the result of imperfect handling. In some, no doubt, the patient himself is solely responsible. The vaccinator, therefore, should make a practice, as far as lies in his power, of watching his cases until the pock has healed, and if a "sore" arm develops, handle it as he would any other infected member.

Tetanus.—One of the rarest complications of vaccinia in the human subject is tetanus, and, were it not for the fact that during the last twelve months a number of cases of this fatal disease have occurred in connection with vaccination and been attributed to it, any lengthy consideration of it would be out of place. But one case has been reported in Canada, and it, on account of legal proceedings resulting, obtained wide publicity.

Investigation of the case above mentioned shows that the death of the child, reputed to have suffered from tetanus, is in no fair way to be laid to vaccination. At the coroner's inquiry into the cause of death it was shown that the child had been vaccinated on or about the 25th of October, 1901, by a druggist, who claimed to have taken proper precautions in operating, *except washing the arm*; that the druggist saw the arm two weeks later and that the result was then perfect and no bad symptoms had developed; that on November 18th a physician was sent for, who says he then diagnosed tetanus, the diagnosis being made from the appearance of the wound and the symptoms. The physician further testified that, in his opinion, the child was inoculated with the disease at the time of vaccination and, presumably, by means of the lymph. The verdict of the coroner's jury was, in accordance with the evidence, to the effect that death was due to tetanus caused by vaccination. The firm whose lymph was blamed for the fatal mishap were not, however, content to let the matter rest, and it is easy to understand why. Further investigation brought out the fact that the physician in charge of the case understood that the tetanic symptoms had followed within two weeks of vaccination, whereas in reality twenty-four days had elapsed. No bacteriological examination had been made, and the diagnosis of tetanus rested entirely upon the symptoms and the fact of an open wound through which infection might have happened being found. Application having been made to the proper

court and the physician's affidavit as to what his evidence would be with more exact information placed before him, the judge *quashed* the finding of the coroner's jury and directed them to sit again. The following verdict was then returned: "That the deceased E. M. C. died of tetanus. The disease was not caused by the method of vaccination nor was due to the vaccine used." That the last part of the verdict which stands in this case was justified, is abundantly apparent. The best authorities are agreed that the symptoms of tetanus develop within from four to fifteen days after inoculation. Meningitis has been spoken of in connection with the case, with how much reason we do not know; in any event, to settle the question of diagnosis beyond dispute, a bacteriological examination of the wound discharges ought to have been made, and this was apparently not done. It may fairly be held that the diagnosis of tetanus has not been established beyond dispute. Moreover, the evidence goes to prove that the vaccination was not performed as it ought to have been. The operator was not a physician, and whilst he testifies to the cleanliness of the child, damages his own standing as a judge of what is properly called clean by also testifying that he did not wash the arm before vaccinating.

Admitting, however, for the sake of argument, that the diagnosis of tetanus in this case was correct, and that the incubation of the disease might extend over more than three weeks, and also taking as proven that the operation was done with all proper precautions, it is still impossible to believe that the tetanus germ was conveyed through the vaccine used. Before it was put upon the market, bacteriological and physiological tests failed to discover any pathogenic organisms in it. Many vaccinations must have been done from the same batch, and yet in one instance only does this rarest of complications follow. That such should be the case is inconceivable if the infection came through the lymph. A much more probable explanation of the accident is not far to seek. There is on the vaccinated arm a wound which, we have every reason to suppose, was not kept clean as it should be, from the fact that it appeared as a running sore at the time when the physician was called in twenty-four days after vaccination. Infection of this wound with tetanus germs is not surprising. The opportunities for entrance of the tetanus bacilli or spores into wounds must be very great, since, in the earth of many localities, and consequently in the dust, the organism is abundant. Why people who are not overly clean do not more frequently fall victims to the disease is the wonder.

Much has also been made by opponents of vaccination, of an outbreak of tetanus in Camden, New Jersey, in which nine out

of eleven cases died. All but one of them had been vaccinated a short time before the disease showed itself. Here again the evidence that the tetanic infection was not due to the lymph employed is complete. The following paragraphs are from the official report of the State Board of Health :

1. Samples of all the different makes of vaccine employed in Camden have been tested for tetanus germs by the State Bacteriologist of New Jersey, and have been found pure and entirely free from tetanus germs ; hence, tetanus could not have been caused by the virus employed.

2. The history of each case of tetanus has been carefully collected from the attending physician, and in every instance vaccination was practiced in a correct and cleanly manner ; the infection of tetanus resulting from neglect on the part of the patients to present themselves to the attending physicians, so that their vaccination could receive proper attention.

3. One case of tetanus has occurred from gunshot wound, during the same period, in a boy who had not been vaccinated, proving that the tetanus germs were in the atmosphere.

4. The indisputable evidence of the fact that the tetanus germs were not introduced at the time of vaccination is that acute tetanus occurs in from five to nine days after the introduction of the germs, whereas in every case acute tetanus occurred in from three to four weeks after the vaccination. If the virus had been contaminated, tetanus would have ensued within nine days after vaccination. Tetanus developed irrespective of vaccine used.

5. Further proof of the purity of the virus exists in the reports of the physicians in Cooper Hospital, who tested on animals samples of all makes of vaccine employed in Camden. If the virus had been contaminated, the animals would have developed tetanus because of their extreme susceptibility to this disease. (Report.)

The whole question of tetanus as a complication of vaccination may be summed up as follows :

1. Infection of any wound, however trifling, with the germs of tetanus may occur.

2. When the widespread diffusion of the organism is considered the number of cases of tetanus from wounds of all varieties is extremely small, and the exposure resulting from vaccination has not appreciably increased it.

3. As lymph is now prepared it can be put upon the market *absolutely free from tetanus germs*, and the liability to infection in any given case can be no greater than the liability from any other wound ; as a matter of fact where ordinary cleanliness is practised it is very much less. If both physician and patient take *all* precautions the danger disappears.

4. With reference to the large number of cases in the Camden outbreak, it is to be remembered that epidemics of tetanus have occurred in the past.

Technique.—The technique of vaccination must aim at two results: the safety of the patient from infection during the operation, and his successful inoculation with cowpox virus.

Antisepsis in Relation to Patient.—A great deal has been said of late with regard to the use of antiseptic precautions in vaccinating, and whilst too much stress cannot be laid upon cleanliness, it is more than probable that many failures are due to over-zealous antisepsis. The germ of vaccinia is extremely sensitive, and even the feeblest antiseptics appear to be fatal to it. In the preparation of the field of operation, no germicide should be made use of the last trace of which cannot be removed with certainty before application of the lymph. Especially are mercurial salts to be avoided. The experience of many reliable observers is that soap and water, faithfully applied, answer every purpose. Some, cleansing first with soap and water, finish off with alcohol, which evaporates rapidly. If alcohol be used, it is worth noting that a dilute solution—50 to 75 per cent.—is more efficient as germicidal than the absolute. Let it be repeated, that a "take" must not be expected if antiseptics be left on the skin to come in contact with the lymph.

Scarification.—In making the scarification, two points are of special importance, namely, that the area scarified be small and that no blood be drawn. As perfect a pox results from inoculation through a small surface as a large, and the smaller the area denuded the less the chance of subsequent infection with pyogenic or septic organisms. It has been found in practice that very sore arms are much more common in the experience of certain physicians than others, and investigation seems to show clearly that this result is just as often due to a too extensive denudation of surface as to surgical uncleanness. Then as to the drawing of blood, it has to be said that even a very small effusion may, and often does, prevent success. It appears that the drying of the blood upon the surface hinders absorption, or that the contact of blood cells with the vaccine germ is detrimental to it. Perhaps both factors are at work. The instrument chosen for scarifying should be such that the epithelium can be removed, leaving a moist, shiny surface without escape of blood. An edged instrument, such as a scalpel or lancet, is better than any pointed one and can be handled with more delicacy and certainty.

A very common proceeding in baring the arm for vaccination, is to roll up the sleeve to the shoulder. Too often the result is practically the ligating of the arm more or less tightly

above the site of scarification. This tells against absorption and may be sufficient to determine a "miss" instead of a "take."

Application of Glycerinized Lymph.—The potency of the lymph depends upon the presence in it of the pulp from the vesicle. It seems to be practically certain that the germ of vaccinia lies in the epithelial cells, and a large part of the pulp is made up of these cells. Inspection of tubes containing properly ripened glycerinized lymph will always show one end of the filled part to be relatively much more cloudy and opaque than the rest of it. If the contents be expelled so that this cloudy part—the pulp in other words—reach the scarification first, the number of successes in a given series will be appreciably greater. If, on the other hand, this precaution be not taken, the greater part of the pulp may go to line the tube wall.

Absorption.—The time required for a sufficient absorption of glycerinized lymph varies. Some samples, for unknown reasons, are taken up very rapidly, and in five minutes from the application the scarified surface may be dry. In others, glycerine is still seen half an hour or more after applying. Fifteen to twenty minutes is generally considered ample time. A gentle rubbing in of the lymph for a few minutes tends to promote rapid absorption. The scalpel blade or slip of wood supplied by some manufacturers may be employed for this purpose.

There is much difference of opinion as to the propriety of covering the vaccinated area with a shield. No harm can come from making use of one for a few hours immediately after the operation, and by so doing the chances of a "take" are increased, since the lymph cannot then be accidentally removed too soon.

In the last place, too much stress cannot be laid upon the fact that the physician should regard vaccination in the light of a surgical operation, a relatively trifling one, indeed, but still an operation. In the majority of cases of surgical wound infections, the infective material is conveyed to the wound by those handling it, or by implements and materials made use of. The most striking examples of blood poisoning are those in which the door of entrance is small, even microscopic. Theoretically, the operator ought to use as much care in regard to his own hands, his scalpel or needle, or whatever instruments he requires, as in any other surgical procedure, and practice should be governed by theory.

Lymph.—A lymph which, while potent as vaccine, would offer the smallest chance of systemic or serious local infection with anything else than the virus of vaccinia has always been a desideratum. We qualify local infection with "serious"

because there are still those who believe that, as in tetanus, infection with the cowpox germ is rendered much more certain (perhaps, even possible only) when the resistance of the tissues is lowered by the action of auxiliary organisms. Whatever the truth may be in regard to that point much time and money are being spent to-day with the object of providing a lymph which shall contain no pathogenic germs which we recognize as such except those of vaccinia itself. The early history of vaccination demonstrates that Jenner's great merit lay in his observation that cowpox could be passed from one human being to another directly, and so introducing arm to arm inoculation. It was comparatively seldom that vaccinia in cattle was discovered and apparently purposive propagation from animal to animal was not thought of seriously, if at all. Moreover, the effects of bovine virus came to be considered much more severe than those of the humanized. Practically the same steps which we see in the evolution of inoculation with variola appear in that of vaccination. The Chinese inoculated with crusts or scabs of smallpox inserted in the nostrils; the Turks with matter from the pustules, and it remained for Sutton to show that by taking fluid from the vesicle at an earlier stage in its development, the disease might be communicated with less danger of severe infection. Scabs and pus were both used in vaccination, to be replaced later with clear lymph taken from the infant's arm at a definite time after the operation. Quills, ivory points and glass capillary tubes, were all made the vehicles of its carriage, and the scab done away with. The chief advantage which humanized lymph possesses over bovine is the easiness with which it may be obtained. Its great disadvantage lies in the fact that it may convey disease, *e.g.*, syphilis, which the well prepared bovine cannot. Both lymphs give protections against smallpox.

The credit of establishing animal vaccination on a sure footing is due to Italy. "After this method had been temporarily tried by Galbiati and Feola, it was brought to a high grade of technical perfection by Negri, of Naples, 1849. Pure bovine vaccination, *i.e.*, the employment of a vaccine virus that has been obtained from a case of original cowpox and transmitted artificially from cow to cow, is consequently still known to many by the historic name of the Neapolitan Method." (Nothnagel.)

At the present day there are in all civilized countries establishments, some private, some under government auspices, for the propagation and supply of cowpox lymph obtained from cattle directly. In Germany, since 1885, vaccination with bovine lymph has been the only legal method.

On the American continent there are now many establishments turning out vaccine, and these are chiefly private. So far as known promiscuous vaccination from arm to arm is no longer a recognized practice. The names of Martin, of Boston, Walsh, of Washington, and Foster of New York, should be mentioned amongst those who earliest undertook to supply a bovine lymph in America.

A minute description of the technique employed in charging the various lymph carriers made use of some years ago with bovine lymph is not necessary. It is enough to note that with only ordinary measures of cleanliness (perhaps in some cases not even those), the points, quills, etc., were charged directly from the animal, nothing being done to counteract the effects of contamination incidental to the process. Points so charged even in the specially constructed stables and laboratories of to-day are found to carry a variety of organisms—some pyogenic—as well as the necessary one. Plate cultivations made from these—I speak from actual experiment—commonly exhibit colonies in very large, almost countless, numbers. Smears show streptococci, staphylococci and bacilli. Doubtless the virulence of these is greatly reduced by dessication, and more or less exposure to light before they reach the patient's arm, but the fact remains that they are not surgically clean.

In 1891 Monckton Copeman introduced his plan of purifying vaccine lymph by mixing it with glycerine, the effect being the gradual starving out of germs other than those of vaccinia, and glycerinized lymph has gradually won its way and proven itself till now there can be little excuse for the use of any other kind.

Through the enterprise of the CANADIAN PRACTITIONER the writer has recently had an opportunity of seeing the methods employed in a number of the leading vaccine establishments of the east, and what follows may be taken, not simply as the results of reading up the subject, but of actual observation of a somewhat extended character. The establishments visited were those of the H. K. Mulford Co., Philadelphia, Penn.; the National Vaccine Farm, Washington, D.C.; Slee's Vaccine Farm, Mount Pocono, Penn.; Parke, Davis & Co.'s Laboratory, Detroit, Mich.; the Ontario Vaccine Farm, Palmerston, Ont., and Stearn's Laboratory, Detroit, Mich. In all of these every facility was given for inspection, and the greatest possible courtesy extended. The Alexander Vaccine Farm at Marietta, Penn., was also visited, but permission to inspect it, unfortunately, could not be obtained. Of its methods the writer has no knowledge.

The proprietors of all the laboratories visited are undoubtedly attempting more or less perfectly to meet the demands

modern science in respect of vaccine production, but most of them are hampered by the conservatism and laziness of the physicians. that is to say, the demand for an inferior article by the medical profession renders it commercially impossible to supply only that which is best.

The evidence that glycerinized lymph is in all desirable qualities equal to that conveyed on dry points—which is non-glycerinized—and that in respect of the number of adventitious organism, contained, it is incomparably better, is irrefutable. In spite of this we are informed that a large part of our profession, objecting to the time necessary for vaccination with the glycerinized material, insist on having dry points as more convenient to use. It is not creditable to us as a profession that we should be behind the producer in supporting a forward movement. In what follows we shall attempt to describe modern methods of securing vaccine, and also demonstrate that the conclusions reached are correct.

(a) *Animals*.—The practice in regard to animals selected for propagation of vaccinia varies. Whilst in all of the institutions mentioned above as having been visited by the writer, young animals only are seen, the age limits run from five or six weeks to twelve months or more. In two of these places milk fed calves are made use of, in one of them the milk is sterilized before feeding. The lymph secured from any of these animals is undoubtedly potent. Practical experience has proved this. It is argued that milk fed calves only should be employed in propagating vaccine, because

1st. They can be more easily handled than larger animals.

2nd. They are less likely to suffer from tuberculosis.

3rd. Being fed on milk only there is not the risk of tetanus germs reaching the lymph that there may be in hay fed animals.

With the first statement we have no concern: it is a matter for the producer only, but the second and third touch matters of importance to everyone.

The natural and strong reply to these arguments is that neither tuberculosis nor tetanus has ever been proven to have followed the use of lymph, from animals either large or small, and that quite sufficient guarantee against them is afforded by the use of tuberculin in testing the cattle and in the subsequent bacteriological and physiological tests of the lymph before marketing it. In deciding the question, it seems to us that we must keep in sight not merely the production of a sound lymph but also the interests of vaccination itself. If any steps seem theoretically to place the manufacture of any product on a more perfect footing, and we believe that product to be necessary for the well-being of the community, then we ought to take

these steps in order to commend it to the community. In other words, the people have a right to the best that science can do for them in respect of vaccination when it is made compulsory, as it practically is with us.

Tetanus germs are not uncommon in stables where hay fed animals are kept; they have been isolated from the faeces of calves to which hay had been fed (Huddleston, N. Y. Health Board); milk if sterilized can contain no tetanus germs; therefore calves fed upon milk and kept in stables from which hay and straw are excluded should afford a lymph in which tetanus germs are less likely to be found than that from hay fed cattle. The inference is plain and we should do everything in our power to cut the ground from under the anti-vaccinationists' feet.

Animals which are apparently healthy having been chosen, there are two ways in common use of deciding that they are free from tuberculosis, viz.: by the tuberculin test and by post mortem examination after taking lymph from them and before putting it out. Tuberculin is relied upon by most producers: some follow the test by post mortem. If one test only is to be trusted to, the post mortem is probably best. Lymph ought not to be supplied which comes from animals having *any* demonstrable defect, even though it cannot be shown that such defect would influence it.

(b) *Vaccination of Animals*.—The steps preliminary to vaccination look to a clean, if not aseptic operation. Some scarify on both sides of the spine behind the ilia, others upon the belly and inside of upper parts of thighs, either in a series of parallel lines one quarter to one half inch apart if in a solid patch form. After shaving and washing with appropriate solutions the scarifications are made, little or no blood being drawn; the "seed" is then rubbed in and the animals stabled till the incubation period of five or six days has passed.

(c) *Collecting the Vaccine*.—When the vesicular eruption has reached the proper stage of development it is washed with sterile water, and any crust which has formed removed. In the old process of dry point making, the vesicle and its contents were scraped clean away and the points dipped into or brushed with the serum exuding from the raw surface after it had been washed with clean water. Of course the proportion of any number of points so prepared that will be found active cannot be so great as if they were charged with the vesicle "pulp," that is to say the material scraped from the vesicle. In this the germ chiefly lies. The true lymph exuding from the base of the emptied vesicle carries just what virus it picks up in passing. Probably if dry points are to be allowed in use at all this is the better mode of preparation since they are less likely

to carry harmful organism than if smeared with unglycerinized pulp, and the difficulty of drying glycerinized pulp is very great. One firm of those visited is making at present a point covered with glycerinized lymph and dried by the use of blood serum. Its efficiency remains to be proven. Another is putting out what are called aseptic dry points, made by a special, secret process.

(d) *Glycerinized or Glycerinated Vaccine*.—In the preparation of glycerinized vaccine the “pulp” taken by a Volkmann’s spoon, as already described, is ground up with glycerine and stored until the useless and harmful organisms in it have died of starvation. Two parts by weight of a fifty per cent. watery solution of pure glycerine and one part of pulp are ground together between glass rollers, or other form of mill, until a very fine emulsion is made. The finer the emulsion the better the result. In Japan it is tested as to fineness by suspending a loopful in distilled water from time to time during the process of triturating. The pulp thus prepared is now stored in refrigerators for a sufficient period to permit of the death of all pathogenic organisms except those of vaccinia, the period necessary being determined by plate cultures made from time to time. When this point has been reached the freedom of the glycerinized pulp from pathogens is further tested by inoculation into animals and its physiological activity in the same way. The last step in the manufacture is that of sealing the capillary tubes, and various methods have been devised to accomplish this without exposing the pulp to danger of contamination.

An effort has been made to meet the demand for points, and also supply glycerinized lymph by means of a specially prepared point. Although somewhat better than the ordinary dry point, inasmuch as the lymph has been glycerinized, still the defects of this method of putting up are obvious when compared with the capillary tubes. The exposure to contamination is of necessity much greater.

In deciding between dry points and glycerinized lymph in practice, the following questions must be asked and answered:

1. Does glycerinized lymph convey cowpox to the vaccinated individual? The experience of such countries as Germany may be pointed to. In England also there is no doubt in the minds of the public vaccinators—men who have had an almost unlimited experience of the use of all kinds of vaccine—that the glycerinized is effective. In Japan smallpox is not regarded with any serious dread, since vaccination has been made general (compulsory): glycerinized lymph is employed.

Two years ago the Provincial Health Board of Ontario passed a resolution to the effect that glycerinized lymph ought in all cases to be used, and instructing local Boards to that

effect. The Provincial Board's own inspectors have employed it extensively in Northern Ontario during the present epidemic of smallpox and are satisfied with the results. Many lumbermen who were vaccinated in 1901 have been exposed to smallpox in the camps since then and protection appears to have been perfect.

The experience of individual physicians in our own midst (Toronto) is almost unanimously in favor of glycerinized lymph. The writer has been favored with the opinions and statistics of many in large practice, and has yet to hear a doubt expressed with regard to its efficiency. In the last place nearly all propagators of vaccine use glycerinized lymph as seed for infecting the animals from which their marketed vaccine is to be taken. As a matter of fact the majority of dry points on the market are charged from animals so vaccinated. To argue then—as some do—that dry points are superior to the glycerinized lymph in conveying cowpox is absurd.

2. Does bacteriological examination demonstrate that there are fewer micro-organisms of all kinds in glycerinized lymph than upon dry points? If the glycerinized lymph be allowed a sufficient length of time to "ripen," it does. From four weeks to two months from the time of mixing pulp and glycerine should be allowed to elapse before vaccinating with it.

Rosenau, of the U. S. Marine Hospital Service made a series of tests of dry points and tube lymph, buying upon the open market the products of eight different manufacturers. His plates from dry points gave an average of twice as many colonies as the tubes. From none of these did he find pathogenic results upon animals. He concluded, however, that some of the tubes must have been issued whilst still green, because so many colonies appeared.

The writer's experience with plate cultures is generally corroborative of that of Rosenau, but Rosenau's average of colonies per plate from glycerinized tubes was very considerably greater. In the tube lymph of one manufacturer only was the number of colonies so great as to make it probable that it had been issued too early. The difference between dry points and tubes in the number of colonies developed was so marked that they should not be classed together at all; if relative freedom from bacteria be a proof of superiority, then there is no doubt that properly aged glycerinized lymph is better than that upon dry points.

VAGINAL SECTION—EXPLORATORY AND OPERATIVE.*

BY T. SHAW WEBSTER, M.B., M.D.C.M., TORONTO.

This paper is intended to bring before your notice for discussion two quite different surgical operations for the relief of pelvic diseases exterior to the uterus.

1. The opening of the abdomen through the cul-de-sac of Douglas.

2. An extra-peritoneal method, dissection from the vagina upward between the folds of the broad ligament to the seat of the disease.

In discussing these operations a comparison between the abdominal and the vaginal routes to the pelvic organs is forced upon us, and I am convinced that as we become better diagnosticians of gynecological ailments, and as we develop the "tactus eruditus," we shall have a greater preference for opening from below rather than above the pelvic organs.

The opening of the cul-de-sac, the method which has been associated with the name of Dr. W. R. Pryor, is safe and simple, and enables the surgeon after palpation and inspection of the contents of the pelvic cavity to operate in a large proportion of cases for whatever abnormal conditions may be found.

In those rare cases in which a vaginal opening must be supplemented by an abdominal one, it provides thorough drainage from that portion of the peritoneum to which all fluids therein contained gravitate through a tract that does not absorb infection. It also gives opportunities for conservative surgery upon pus-tubes, cystic ovaries, etc., unattempted yet by the abdominal route.

For two days before operation the vagina should be subjected to a sterilizing process. At the same time the patient is prepared for abdominal section, so that it can be done immediately should it be found necessary owing to the complex nature of the lesions. In such a case it is preferable to continue the removal of the diseased organs by the vaginal route with the assistance of one hand, or part of it passed through the abdominal incision rather than to lift viscera from an infected pelvis through a normal abdomen, and an incision easily made septic. After the patient is anesthetised the external genitals and vagina receive a final cleansing, and the endometrium is gone over with a dull curette, and with a sharp one afterwards if indications are present necessitating the use of it. The

* Read before the Ontario Medical Association, June, 1901.

cavity of the uterus is now irrigated with warm salt solution, and mopped out with sterile gauze, and the vagina is washed with warm bichloride solution, 1-5000, and wiped dry. The double volsella is fastened into both lips of the cervix, and it is drawn downward and forward.

The mucus membrane of the vagina, half an inch posterior to its reflection from the cervix, is picked up with long forceps, and a horizontal incision an inch long made with scissors, cutting through the mucus membrane only and not entering the peritoneal cavity, while making downward traction upon the cervix the index finger is pushed upward through the cellular tissue until the peritoneum is reached. This fact is readily recognized by the presence of a little fluid fluctuating in the cul-de-sac, or by the smooth anterior and posterior surfaces of the cul-de-sac gliding over each other when the examining finger is pressed forward and moved up and down. The peritoneum is opened by catching a fold of it with forceps and making a small cut with scissors, as in laparotomy. This opening is dilated with the fingers as wide as may be necessary. Should the tissues resist the tearing, the scissors may be used with care to enlarge the opening.

Adhesions can now be broken up, the pelvic organs palpated and drawn through the incision into the vagina. The uterus being held down with the forceps in the cervix, the fingers are hooked over the tube or ovary to be removed. While these are drawn gently downward and backward the cervix is pushed upward and forward. These movements combined retrovert the uterus so that it is turned nearly upside down, and allows the adnexa to be drawn into the vagina.

The insertion of Howard Kelly's broad retractors will now give ample opportunity for inspection and manipulation. Conservative operations, such as opening and draining tubes, incising and evacuating cysts, enucleating fibroids, etc., can now be done and radical removal effected if advisable. The intestines are kept out of the pelvic cavity with gauze pads. This is the method I have followed usually. Dr. Pryor places the patient in the Trendelenburg position, and uses an anterior retractor shaped like a trowel, with which he forces the uterus upward and forward out of the way, and with a short Jackson's speculum retracts the perineum. After the cul-de-sac and vagina are mopped clean and the pads removed, a loose plug of iodoform gauze is inserted just within the incision to prevent the protrusion of the intestines and to provide drainage. The uterus is now pushed back into position and the vagina packed loosely with iodoform gauze: the patient is catheterized for three days. On the third day the gauze is removed without irrigation. The peritoneum will usually be found closed, a

slit remaining in the vaginal mucus membrane. The vagina is repacked every three days until healed. Many patients may be allowed out of bed in a week, and return home in ten to fourteen days, when the opening is usually closed entirely.

Abdominal section is frequently followed by stitch abscess hernia and troublesome adhesions, and always has an ugly scar to fret nervous patients. The vaginal method is followed by no untoward sequelæ.

The extra-peritoneal method of relieving pelvic inflammations.—When an infecting organism enters a Fallopian tube it usually sets up a reactionary inflammation which tends to close the fimbriated end and thicken the tube. In some cases it invades the intra-ligamentary cellular tissue and the peritoneum, especially that part forming the folds of the broad ligament becomes hypertrophied. In most cases pus accumulates in the tube, and as it is distended it tends to separate the folds of the ligament so that a considerable space is found between them, and the tube may eventually rupture into the ligament. Not infrequently tubal pregnancy works outward into the broad ligament and ruptures into it. In cases where these pathological processes occur, and we are called upon to operate either before or after rupture, an extra-peritoneal dissection gives the best results. Since 1896 I have practised the following method in such cases:

The patient is prepared for vaginal, and also for abdominal section, as in the cul-de-sac operation. The uterine artery is located, and the mucus membrane beneath it is opened with forceps and scissors and a dissection made with the fingers through the cellular tissue toward the seat of disease. If one keeps close to the uterine artery there is little danger of puncturing the folds of the broad ligament and opening the abdominal cavity. In this way I have exposed the under surface of pus-tubes, and an ectopic gestation. A small electric light, such as is used with the male urethroscope, can be inserted and a visual inspection made, but "finger sight" is all that is needed to recognize the under surface of the tube. When the tube is reached an assistant holds the tumor down by pressure from above, and the index finger is inserted so that the tip touches the tube. Along this finger, as a guide a long sharp pointed scissors is passed to the tube, and by gentle pressure is forced into it. When the tube is punctured that fact is recognized by sudden diminished resistance. The scissors are opened in the tube and withdrawn, tearing the opening wide enough for drainage. After the contents have been forced out by pressure upon the lower abdominal wall and irrigation used if necessary, a gauze packer is introduced and an iodoform gauze drain put in. This is changed as

required until the opening is closed from the tubal end. As soon as the patient has recovered from the anesthetic she may be allowed to go about without danger.

I have relieved a tubal pregnancy by this method and sent the patient home in three days. Eight days after she walked half a mile to church, two and a half years after she gave birth to a healthy baby, having had perfect health in the interval.

This extra-peritoneal operation differs from "vaginal section and drainage," as practiced by Dr. H. A. Kelly and others. Their plan is to force long sharp-pointed scissors through the vaginal mucus membrane upward in the axis of the pelvis to the focus of inflammation or centre of the tumor. In doing so the ureter or rectum may be punctured, or the scissors may transfix the abscess cavity and pass into the abdomen.

The plan I have outlined has been practiced without mishaps. In ruptured tube cases the finger does all the work after the mucus membrane of the vagina has been opened. Intra-ligamentary cysts and a ligature abscess after abdominal section can be relieved by this method without danger and with the same rapid convalescence.

CASE I. Mrs. F. W., Crawford Street, Toronto, aged 43 years, mother of seven children, the youngest being seven years of age. No miscarriages. Had complained of pelvic pains for about two years, especially on walking a distance. Examination on May 29th, 1901, showed a great tenderness of both sides of the pelvis. Patient gave a history of irregular flowing, never very profuse, with occasional cramping pains, lasting about two weeks and beginning about the usual time of the month. As she could not bear the pain of a thorough examination I returned the next day with an anæsthetist, and under chloroform both tubes were found enlarged; the right globular and firm; the left ovoid and fluctuating. Diagnosis of pus-tubes or tubal pregnancy was made and patient removed to the hospital on June 5th. Two days later the cul-de-sac was opened and a right ectopic gestation and left pyosalpinx removed. Patient was allowed to get up on the eighth day and returned home on the tenth, taking a pleasure drive to Mimico and back the same afternoon. No subsequent symptoms of disease. Drs. Clouse and Carveth were associated with me in this case. Specimens presented.

CASE II. Mrs. McL., aged 35 years. Has never been ill since childhood. Married in Baltimore, Md., July 12th, 1898. Consultation on August 17th elicited the following facts: No menstruation for six weeks, when an irregular flow began and had continued for about ten days with occasional pain, not severe, but followed by profuse flow. Examination on August

23rd revealed a tumor as large as a hazel nut in right tube, excessively tender, which had increased to the dimensions of a small walnut by September 10th, when she was examined by Dr. W. J. Wilson and the writer. Pain was of a severe cramping character and brought on attacks of faintness. Tubal pregnancy was suspected and the patient removed to the Western Hospital to await developments. She was kept constantly prepared for abdominal and also vaginal section. During the next week she suffered intensely, although morphine was given twice daily, and ate nothing. The temperature continued normal and the pulse fluctuated with the pains. One week after admission to the hospital she was taken to the operating room, and under anesthesia it was found that the tumor was now as large as a duck's egg and slight fluctuation could be detected *per vaginam*.

The extra-peritoneal dissection described above was begun and completed in about ten minutes. When the tube was opened fluid blood and dark-colored clots came away with small pieces of placental tissue. A narrow strip of iodoform gauze was inserted for drainage. The following night she slept ten hours. The next day she was free from pain and ate light diet heartily. Three days after operation she wrote several letters and went home in a cab in the evening. I induced her to stay in bed the next day but after that she was up and about the house, and on the eighth day after the operation she walked half a mile to church. The sinus closed in about two weeks. Pregnancy and childbirth two and half years after gave no reminder of previous illness.

CASE III. Miss S., aged 28 years. Seamstress. For four years suffered from dysmenorrhea and leucorrhea. Was unable to work about two weeks in each month. Being consulted on September 13th, owing to the chronicity and severity of symptoms, I advised examination, which discovered a small tumor on left side of uterus not adherent to it. Entered hospital September 19th, and the following day under chloroform tubo-ovarium cyst was diagnosed and the vagina widely dilated preparatory to operation, which was done on October 2nd. Ten days after she walked home half a mile and has not been indisposed since. Specimen presented.

CASE IV. Mrs. G., aged 28 years. Married four years. Suffered from dysmenorrhea before marriage and became worse after. In July, 1900, she became pregnant for the first time and suffered from agonizing pain day and night, accompanied by severe vomiting. In November she was greatly emaciated and a nervous wreck, and Dr. J. Noble, her attendant, after consultation emptied the uterus which he describes as an irregular mass before delivery and afterward presenting an enlargement

on the right side. Partial relief followed delivery, but she did not regain strength.

Dr. Noble asked me to operate and she was taken to the hospital on January 17th, 1901. On January 21st she was ready and under chloroform. A hard tumor attached to the anterior surface of the right cornu could be palpated. The cul-de-sac was opened and the mass forced backward and downward into view, then seized by tenaculum forceps and removed. It proved to be a fibroid as large as a medium-sized orange. The margins of the site of attachment were drawn together by sutures and the uterus replaced. She had no further discomfort and gained very rapidly in strength leaving the hospital in two weeks from day of operation. Specimen presented.

Clinical Note.

TWO CASES OF CONTRACTED PELVIS.

REPORTED BY

K. C. McILWRAITH, M.B., TOR., F.O.S., EDIN.

CASE I. Mrs. B., age 24, primipara. Admitted to the Burnside, November 19th, 1901. Examined November 20th. Height 5 feet 1 inch, a slight, delicate-looking woman. Pelvic measurement: Interspinous 21 cm., intercrystal 27 cm., external conjugal 18 cm., transverse at the outlet 11 cm., pubo-coccygeal 10 cm., diagonal conjugate 11.5 cm.; the posterior superior spines more than usually prominent, distance between them 12 cm. The abdominal diagnosis was: Position O. D. A., child small, head freely movable above the brim; diagnosis, simple flat pelvis. Labor commenced on the afternoon of January 4th, position O. L. A., head not engaged. Kept in bed.

January 5th, 4 p.m. The patient had now been in labor for twenty-four hours. The cervix was reached with much difficulty. The os was a little larger than a silver dollar, soft and dilatable. The membranes were intact. The head was not fixed. The pains had not been very severe, but the patient was becoming exhausted. Chloroform was given, the os manually dilated and version proceeded with by the Baraxton Hicks' method. (Drs. A. H. Wright and K. C. McIlwraith.) The membranes ruptured before this was completed, a hand was introduced into the uterus, a foot brought down, and extraction proceeded with. The head was brought through the brim by traction with the fingers of one hand in the child's mouth and the other over its shoulders, aided by firm pressure by an assistant on the head through the abdominal wall. The arms were extended and were brought down, the posterior first. The final extraction was difficult owing to rigidity of the perineum. The child was resuscitated by removal of the mucus from the larynx by means of a long silver male catheter, followed by Sylvester's method of artificial respiration, with tongue traction and alternate hot and cold tubs. There was a slight laceration of the pelvic floor and perineum, which was repaired next day. Union was good by the eighth day. There was a slight rise of temperature at the end of the first week, when an offensive clot was expelled. By the twelfth day inoculation had so far advanced that the height of the fundus uteri above the symphysis could not be measured: the child, a boy, weighed 8½ lbs

Mother and child left the hospital in perfect health at the end of the third week of the puerperium.

CASE II. J. F., age 25, primipara. Examined December 5th, 1901. Height 4 feet 8 inches, a small but strong woman. Pelvic measurement: Interspinous 22 cm., intereristal 26 cm., external conjugate 18 cm., diagonal conjugate 10 cm. The abdominal diagnosis was, position O. L. A., head not fixed. The vaginal canal was very small, a considerable part of the hymen remaining. January 5th (the same day on which case I. was delivered) labor commenced with the painless escape of the water. 10.30 p.m., patient in labor ten hours, head not fixed in the brim, large caput succedaneum present. Version done comparatively easy by the internal method, and extraction proceeded with. The head caught at the brim and could not be extracted as in case I. Parter Mathew's axis-traction forceps were then applied. Traction advanced the head slightly, and delivery was then completed by manual efforts. Child weighed $6\frac{1}{2}$ lbs. Heart beat for half an hour after delivery, but no efforts at respiration could be excited. There was a severe laceration of the pelvic floor as well as of the perineum, which was repaired next day. The union was good in the internal tear at the end of eight days, but the external tear failed to unite. The edges were freshened and re-united, and union was good at the end of the sixth day. The uterus could not be measured after the eleventh day. The puerperium was afebrile throughout, and the patient discharged in good health at the end of the third week. In this case the transverse diameter was contracted also.

Society Reports.

TORONTO CLINICAL SOCIETY.

STATED MEETING, FEBRUARY 5TH, 1902.

Dr. Edmund E. King, the Vice-President, in the chair.

Fellows present: King, Aikins, Primrose, Peters, Hamilton, Orr, Trow, W. P. Caven, Pepler, Anderson, Stark, Small, McIlwraith, Boyd, Oldright, Ryerson, Parsons, Fenton, Silverthorn, Thistle, Bingham, Garrett, Dwyer, Cameron, Parsons and Elliott.

Visitors: Drs. A. J. McKenzie, Goldie, Lowry, Chisholm and Rutherford.

APPOINTMENTS ON THE SANITARY COMMITTEE OF THE INDUSTRIAL EXHIBITION.

Dr. Orr moved, seconded by Dr. Trow, that the same two Fellows be appointed by this Society as were appointed last year, viz., Drs. W. H. B. Aikins and H. J. Hamilton. Carried.

Notice of motion by Dr. Aikins: "That any resident Fellow absenting himself from all the meetings of the Society for one year, shall at the discretion of the Executive Committee have his name struck from the roll of members."

Election of Fellows: Dr. C. J. O. Hastings was elected a Fellow of the Society.

PRESENTATION OF CASES.

Fracture of Spine—Two cases.

Dr. E. E. King presented these two patients and recorded the histories of each. The first occurred eight years ago. Patient was a blacksmith. While working under a waggon wrenching off a nut the waggon fell on him and crushed him beneath it. Fracture of the spine resulted at the eighth and ninth dorsal vertebrae, and also dislocation of the clavicle at the sternum. He was paralyzed below the point of fracture and remained so for four months. Recovery was gradual, and he resumed work within two years from the time of the injury. The patients were here presented. In the blacksmith, kyphosis is exceedingly well marked. He has comparatively natural use of all parts of his body. Sensations are now nearly normal. With reference to the second case. This was an

elevator accident. The force was great, and it bent him laterally as well as forward, throwing him on the floor. Dr. King saw him six and a half hours after the accident, and found him paralyzed in both limbs and total absence of sensation. During the day sensation returned to the man entirely again. The right leg recovered first and then the left gradually. At the present time, which is now eight months after the accident, the reflexes are exceedingly exaggerated in both legs. In this case there was a considerable amount of bladder trouble. The muscular system is now gradually recovering, but he has not been able to resume his work yet.

Dr. Peters discussed the cases. He said there was dislocation as well as fracture in the blacksmith. The eleventh vertebra and parts below are carried forwards. Most of these cases result in complete laceration of the cord, and if that occurs there is absolutely no hope for them.

Clonic Ending in Tonic Convulsions.

Dr. Pepler was permitted to show a case, a lad of seventeen years of age, who had come to him only a few days ago. About six years ago he had had an attack of localized convulsions beginning in the left hand.

This affected gradually the whole of one side, beginning in the left hand. Now there is a good deal of atrophy with spastic gait. The attacks end in loss of consciousness. There is no history of hemiplegia in this case. The patient was presented to the Fellows. The reflexes are exaggerated on that side, but the sensations are apparently normal.

Dr. Anderson thought that the case showed the characteristics of cerebral palsy, but the cause of it is not very apparent from the history. Dr. Pepler states that there is no cardiac lesion. Evidently some irritation in the cortical region is producing the convulsions.

Dr. Boyd: The boy says he had some sort of stroke, probably a sunstroke. A fall might have had something to do with it.

Dr. Pepler stated that there was no history of either shock or injury of any kind.

Piece of Steel Removed from Eye.

Card specimen presented by Dr. Trow. Especially presented to show how well the X-rays help in locating a small foreign object in the eye. Occurred in a healthy young man, a mechanic, who got hit by a piece of steel. Seen by Dr. Trow some days after the accident and a wound was found in the cornea. The iris was torn, also the lens. Could not see the vitreous on account of blood and opacity of the lens. Introduced the point of a magnet into the wound, but it was possibly

not strong enough to attract it. Also employed forceps, but could not find the foreign body. Then the X-ray was used and could at once make out very clearly that the steel was in the eye. Could tell the distance back and also the size. It was a half inch back on a line with the lower lid. With a magnet then the foreign body was brought to the edge of the wound through which it finally came without causing any tearing, bleeding or any injury whatever.

Drs. Ryerson and King discussed this case.

Capsular Nephrotomy. BY DRs. W. P. CAVEN AND GEORGE A. PETERS.

The notes of this case were read by Dr. W. P. Caven. A. W., male, aged 34 years. Suffered from magraime from childhood. In the summer of 1899 he was first told that he had Bright's disease. The kidneys were known to be sound in 1892, when he passed for life insurance. In 1896 he had had a great deal of worry and traces the commencement of his ill-health from that time. He came under Dr. Caven's observation in 1901, and the diagnosis was suffering from Bright's disease. The quantity of urine passed varied from 60 to 80 ounces in the twenty-four hours, and three to seven grammes to the litre, albumin. Hyalin, granular and fatty casts present in great abundance; urea from one and a half to two per cent. On January 3rd, 1902, under chloroform, Dr. Peters performed encapsulation of both kidneys at one sitting. Before operation there was a gradually increasing number of casts in the urine; none now found in the twenty-four hours. A chart was presented and Dr. Caven stated that it could be seen by the record that there was no material change in the albumin or total quantity of urine passed nor in the excretion of urea. The patient was very ill for some days after the operation, general health lately commencing to improve. Dr. Caven then referred to Dr. Edebohls' paper on the subject.

Dr. Peters, in continuation of Dr. Caven's remarks, stated that the operation was performed on the 3rd of January, 1902. He referred to the presence of a small abscess on the neck, which seemed to him might have some bearing on the case. Before commencing these operations there should be a preliminary preparation of about a week, regulating the bowels, diet and skin. He did not use the incision as recommended by Edebohls, but the incision Reginald Harrison uses, Edebohls being certainly receded by Harrison, who employed it in cases of the acute disease. Dr. Peters did not deliver the kidney through the wound. Such traction cannot do good and may do harm. Edebohls delivers the kidney right out of the wound on to the surface of the body. Dr. Peters does not see any

reason for this procedure. You can easily strip off the capsule from the surface of the kidney. The operation was done first on the right and afterwards on the left side at the same sitting. The right kidney was considerably enlarged. Drainage tubes were inserted on both sides. Dr. Peters stated that Edebohls had not drained except in one case. After the operation on the kidneys the abscess on the neck was scraped out and packed with gauze; this healed readily. Suppuration occurred in both wounds, but it had almost subsided at the date of reporting the case.

Capsular Nephrotomy. DR. A. PRIMROSE.

The first operation performed by Dr. Primrose was done before Edebohls' paper was published. His first operation was done on the right kidney, and the second on the left. A boy ten years of age, who for six months had general anasarea and ascites. Photographs were presented showing the child before and after the operation. A chart illustrating the course of the case was also shown. He had general edema over the body, particularly well marked in the face and extremities, and a very greatly distended abdomen. Before coming under Dr. Primrose's care, paracentesis abdominis had been performed seventeen times. Albumin was present in the urine; the urine contained 1.6 per cent. of albumin. On November 20th last he cut down upon the right kidney in the line following Harrison's incision, and drained for a fortnight. As a result of this operation the urine gradually increased from twenty to forty ounces, and the albumin diminished. On December 20th, forty-two days after he came into the hospital, Dr. Primrose cut down upon the left kidney, and removed the kidney capsule entirely. In this instance he followed Edebohls' suggestion and brought the kidney out of the wound. After this operation the child was critically ill for some days, but gradual recovery set in and the renal symptoms underwent a remarkable recrudescence. The amount of urine excreted was now forty-four ounces; the albumin diminished to 0.3 per cent., general edema has disappeared.

Discussion on these two cases was begun by Dr. H. B. Anderson and continued by Dr. Bingham, Mr. Cameron, Dr. McKenzie, Dr. Silverthorne, Dr. Fenton, Dr. Goldie, Drs. Caven, Peters and Primrose replying.

GEORGE ELLIOTT,

Recording Secretary.

STATED MEETING, MARCH 5TH, 1902.

Dr. W. H. B. Aikins in the chair.

Fellows present: Aikins, Small, Bingham, Bruce, Hamilton, McIlwraith, Thorburn, Hastings, Garratt, C. A. Temple, Greig, Lehman, Anderson, Ryerson, Rudolf, Parsons, Oldright, Wright.

Visitors: Drs. Rogers, Ingersoll, Sutherland, Embro, Bruce L. Riordan, McGillivray, Hooper and Bray.

Election of Fellows: Drs. B. Z. Milner and William Goldie.

Presentation of patient by Dr. Garrett.

Ten years ago the father of the boy consulted Dr. Reeve for eye trouble, and six years afterwards this boy was born. Up to last July the child had been perfectly healthy, at about which time he was taken with the first convulsion. His left arm is powerless, and he has constant twitching in it. There was ptosis and also inability to walk. He was unable to use the left arm or hand at all. In Dr. Garratt's opinion the child was the subject of hereditary syphilis, although he had been born six years after it was present in the father.

Tubal Abortion—Specimen.—By DR. GEORGE A. BINGHAM. **Carcinoma of the Rectum—Specimen. A Case of Intussusception.**

The first specimen presented by Dr. Bingham was one of carcinoma of the rectum, which he had operated on in May of 1891, by the so-called Kraske method, but which was really a modification, in which the coccyx and lower two or three pieces of the sacrum were removed. The case of tubal abortion occurred in a woman of thirty-two years of age. She last menstruated in November, 1901. She was ill at that time for one week as usual. She should have been ill again on December 5th, but passed her time, and on the 13th, eight days after, a whitish discharge, tinged slightly with blood, began. This also contained some small pieces of membrane. She consulted Dr. Bingham on the 24th of December. With the history he diagnosed tubal gestation, unruptured, and advised operation. Dr. Temple confirmed the diagnosis. When Dr. Bingham opened the abdomen he expected to find no blood. He, however, found a large amount of clots in the peritoneal cavity. Looking for the explanation of the blood he noticed that it was dripping through the extremity of the tube, so he believed he had a case of tubal abortion. The patient had shown no evidence of loss of blood prior to the operation. Case number 3 occurred in a baby of fourteen months, on January 1st of the present year. There was diarrhea with tenesmus, but no bloody mucus—absolutely none. On the fourth there were no evacuations at all. In the evening of this day the patient was given an enema, when for the first time a limited amount of bloody mucus was passed. Dr. Bingham

saw the child on the fifth in consultation with Dr. Harrington. Her pulse was weak and thready, and she was retching pretty constantly. Colic was intermittent. The abdomen was distended. The diagnosis was intussusception and operation advised. There was one very large gangrenous opening in the bowel, showing how rapidly this takes place. The intussusciptiens was the portion which was gangrenous. The cause of this case was a fairly large polypus. The child died of shock some twelve hours after operation.

**A Case of Perforation of the Bowel in Typhoid Fever,
Operation and Recovery—followed by Sub-Phrenic Abscess.
Operation and Recovery.**—Reported by DR. HERBERT A.
BRUCE.

This case, which was fully reported in the March number of the *Canadian Practitioner and Review*, occurred in a young medical practitioner of twenty-eight years of age. It is the first case recorded in Canada of full and complete recovery after operation for perforation in typhoid fever.

MEDICAL ITEMS.

New buildings have recently been erected at Grosse Isle Quarantine Station at a cost of \$60,000.

The next meeting of the British Medical Association will be held in Manchester, commencing Tuesday, July 29th.

The meeting of the International Association of the Medical Press was held April 7th, 1902, at Monte Carlo, under the protection of his highness, the Prince of Monaco.

The American Congress of Tuberculosis will hold its third annual meeting May 14th, 15th and 16th, 1902, at the Hotel Majestic, 72nd Street and Central Park, West, in the City of New York.

The American Association of Pathologists and Bacteriologists held its second annual meeting at Cleveland, Friday and Saturday, March 28th and 29th, 1902, under the presidency of Dr. William T. Councilman, of Baltimore.

Among the laryngologists who have agreed to contribute articles upon diseases of the larynx for the new edition of the "Reference Handbook of the Medical Sciences," we might mention the following: Bryson Delavan, on Fractures and Dislocations; Carl Seiler, on New Growths; J. N. Mackenzie, on Leprosy; Birkett, on Syphilis; Casselberry, on Perichondrites; Price-Brown, on Stenoses, etc., etc.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLIMSTED.

Masked Epilepsy with a Criminal Complication.

The case reported is one of epilepsy of a very unusual character. A young man 21 years of age was an inmate of the Milwaukee Sanitarium for three months. An indictment for burglary had been returned against him, but the circumstances were so peculiar as to raise a doubt of the patient's mental integrity. There was no question but that he had broken into a dry goods store in the night, where he had been captured by an officer. At the time he had two pairs of socks in his possession, the price of which was a nickel a pair. The patient had previously borne a good reputation.

The mother of the patient was in early life migrainous. The father was of an irritable disposition, and had been a sleep-walker in youth.

The patient stated that ever since he could remember he would have spells, when he would have to lie down; sometimes these attacks were accompanied by a blank period. When five years old he would often give up play, seem sick, and go to bed, being dull and indifferent for four or five days, not answering when spoken to. Something of this nature has taken place every six weeks or so up to date. These attacks have come on at night occasionally, as the patient would often be heard groaning, and the "spell" would show itself in the morning, the patient failing to get up as usual. These attacks interrupted school work. On the night when he was arrested he had been engaged in driving an omnibus, meeting the midnight train as usual, but four hours later was found in the store into which he had broken. When accosted by the officer he made no attempt to escape. When he was told of his act he seemed indifferent and denied all knowledge of it.

The patient stated that in the "spells" he was never unconscious except on one occasion, when he was driving, and, nine miles from home, all knowledge left him, and the next thing he knew he was putting out the team at home. The last thing he could recollect he was approaching a railroad crossing nine miles distant.

The three months' residence in the sanitarium revealed no vicious tendencies, though he was allowed to go about freely,

not knowing that he was under careful observation. He never took liquor in any form, and while at the sanitarium gave up the use of tobacco, in which he had indulged, the deprivation costing him a severe struggle.

The physical examination showed a high-arched palate, muddy complexion, constant sweating of hands and feet, tongue coated, appetite good with an excessive fondness for meat, digestion impaired, constipation, and gaseous distention. The knee-jerks were exaggerated, vision and pupils were normal, there was a tremor of eyelids and tongue, the voice was tremulous, sleep disturbed. The urine was negative, and the pulse 80.

Shortly after his admission, while playing cards in the hall outside of his room with his attendant, the patient suddenly and unexpectedly put down the cards, got up and went to his room, put on his overcoat and cap, and started downstairs without saying anything, and went to the village. The attendant spoke to him repeatedly, but received no reply. The attendant finally turned him about, and they returned to the sanitarium, the patient not speaking. He seemed dull and confused, and the attendant helped him to undress. At about 12.30 the same night he got up, dressed, and extracted the keys from underneath the pillow of the attendant. He opened a locked window screen, and went down on the fire escape: at 3 a.m. he found himself lying in the snow near the sidewalk in the main street in the village. He thinks he had fallen down, slipping on the snow, and that this woke him. He got up and returned to the sanitarium. He seemed dazed, but went to bed and slept until noon. On awakening, he had no recollection of what had happened to him after he stopped playing cards until he found himself lying in the snow in the village. Under bromides the patient steadily improved, gaining in weight and in physical and mental activity.

The writer regards the case as one of larvated epilepsy, and the attacks of unconsciousness and automatism as psychical equivalents.—DEWEY, RICHARD. *Milwaukee Medical Journal*.

The High Value of Normal Salt Solution.

Even at the expense of reiteration the importance of the use of normal salt solution in certain major conditions may be emphasized. Experience has abundantly shown that it is safe to employ hypodermically, and that its effect is prompt and more decided than possible to obtain by other means. Six drams of sterilized salt dissolved in one gallon of sterilized water is the proportion that may be readily used, and this solution, at a temperature of from 110 degrees to 120 degrees F. may be injected into the loose subcutaneous tissue in varying amounts and at varying intervals, according to the demands of the case.

Normal salt solution is thus indicated in shock, hemorrhage and in acute toxic and septic conditions.—*The Clinical Review*.

Skin Eruptions in Bright's Disease.

Prenle (*Practitioner*, London,) gives Thursfield's classification as follows: (1) The affections which characterize (or may arise in) the early stages of renal disease: pruritus, urticaria, eezema; (2) those which occur in the final stage and in uremic conditions—the universal erythematous, bullous and desquamative eruptions; (3) purpura and other hemorrhagic eruptions; (4) those affections which are seen only with marked edema. The author states that the process is probably similar to that by which eruptions are caused in septicemic or ptomain poisoning, *i.e.*, toxins acting through the vasomotor and tropic nerve systems. It is certain that neither urea nor uric acid is the toxic substance at work, and it has been suggested that substances of aromatic group which reduce Fehling's solution and which are frequently present may be the active agents; but no cogent evidence has been adduced on this point.—*The Charlotte Med. Jour.*

The Character of the Cerebro-spinal Fluid in Mental Diseases.

Louis Duflos (*Thèse de Paris*) has an important contribution which attempts to establish the practical value of lumbar puncture and examination of the cerebro-spinal fluid in the differential diagnosis of certain mental affections—especially the alcoholic insanities, subacute varieties of general paralysis, and senile dementia. The procedure has a practical value also in offering relief in cases of tuberculous meningitis attended with convulsions, acute gastric crisis of tabetic origin, and threatening apoplexy of Bright's disease. Its value in diagnosis has been maintained by Babinski and Nagrotte, who in a report at the Société Médicale des Hôpitaux in May, 1901, gave an account of 120 cases of nervous disorders—hysteria, tabes dorsalis, general paralysis, polyneuritis, chorea and epilepsy—showing that lymphocytes were present in the fluid withdrawn in all cases of general paralysis and tabes dorsalis, and that "permanent lymphocytosis, when it was not due to tuberculous meningitis, indicated generally the presence of diffuse syphilis." Duflos points out that patients with delusions and with melancholic or hypochondriacal depression are not suitable for lumbar puncture, as the operation might form the starting point of further delusions. Paranoiacs in the second stage of their disease are also unsuitable subjects. Examination of the fluid examined by lumbar puncture gave the following results in various forms of insanity: In an old man of 70 years with organic dementia the results were negative, as also in two

young men who were the subjects of dementia precox. In a chronic melancholiac of alcoholic habits a few scattered lymphocytes were found: in a puerperal woman with depressive delirium and mutism the results were negative, as also in two cases of delusional melancholia. In chronic alcoholic subjects lymphocytes were present in small numbers; but in subacute alcoholism with delirium and hallucinations the proportion of lymphocytes were high. From careful study of nine cases Duflos concludes that the presence of lymphocytes indicated the occurrence of a chronic or subacute inflammatory process in the cerebro-spinal system, and that the presence of polymuclear leucocytes pointed to an acute inflammatory condition, as in tuberculous meningitis, erysipelas, etc. In general paralysis lymphocytes were seen in abundance, and this served to differentiate this disease from the insanities of chronic alcoholism and some forms of senile dementia, both of which at times closely simulated general paralysis as regards symptoms.—*British Medical Journal*.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES W. F. ROSS, ALBERT A. MACDONALD
AND K. McILWRAITH.

Anesthesia in Obstetrics.

Partridge lays down the following rules in the *Providence Medical Journal* as to the use of anesthetics in obstetrics:

The anesthetic should be given during the latter part of the second stage. If its administration is begun during the latter part of the first stage and the beginning of the second, altogether too much would in many cases be given, for these two periods may last for hours. When the head is well down, nearly or quite upon the perineum, the pains become more frequent and more severe. Now is the time for the anesthetic. It should be given with pain.

Chloroform may be given on a handkerchief or napkin, folded and held at some distance from the face.

One fact worthy of notice in connection with the whole subject of anesthesia in labor is that whether the anesthetic has been given to the obstetrical degree only or pushed to the surgical degree, vomiting almost never occurs. So rare is it that when seen it always attracts attention and suggests some complication.

Besides the use of anesthetics in labor, and for obstetrical operations as already mentioned, their employment is usually recommended in cases of eclampsia to control the convulsions.

Experience, however, would indicate that anesthesia fails in these cases unless it is continuous, because during the convulsion respiration ceases, only to begin when the patient is coming out of the seizure. None of the anesthetic vapor is inhaled, and no cessation of the convulsion can therefore result from the exhibition of an anesthetic. In order to control the seizures the chloroform must be given in the period of quiet between the attacks, and this is hardly advisable until the anesthesia is to be made complete for operative interference.

Certain other agents have some anesthetic power. Among these chloral holds the highest place, and is lauded highly in many of the text-books, although the writer's use of it has been disappointing. It is usually recommended to give it during the first stage, to relieve the nagging pains and to relax the rigid cervix, which often delays progress. The dose usually given is 15 grains every twenty or thirty minutes for three doses. The writer has given it in this way in a number of cases, and has found that it was often vomited, and when retained seemed to have no analgesic or relaxing effect.

In the cases of rigid cervix, nothing acts as well as a hypodermic of $\frac{1}{4}$ grain of morphine with 1-150 atropine. The patient usually sleeps two or three hours, and when she awakens and the pains begin, the cervix relaxes and the labor proceeds satisfactorily. No ill effects seem to follow this treatment.—*Abstract Therapeutic Gazette*.

Can a Fetus Cry in Utero?

Before the days of scientific obstetrics midwives declared the fetus might cry out audibly in the womb. Reidhaar, of Båle (*Centralblatt f. Gynäk.*, No. 6, 1902), claims to have had recent experience of a case of the kind, noting how within the last ten years several instances of "vagitus uterinus" have been reported by well-known authorities. Thorn, six years ago, recorded that he heard three cries after using Barne's dilator, and Schaller speaks of an inexperienced operator who attempted to turn, and during the process the fetus was heard to cry out for over fifteen seconds. The question has been raised whether there is true inspiration and expiration when the voice is heard. Reidhaar's patient was a woman aged 21, who suffered from a severe attack of enteric fever in August, 1900, followed by septic endocarditis and hepatic, pulmonary and renal embolism. She was pregnant, and her general health grew worse and worse. Induction of labor was therefore decided upon on November 23rd, 1900. There was cardiac hypertrophy, pulmonary regurgitation, and albuminuria, but the fetal heart sounds were clearly audible. At 10 a.m. Reidhaar introduced his metreurynter or dilator, the waters escaped at

once. One hour later, as no pains had set in, he removed the instrument and introduced a larger size, but he found this manoeuvre very difficult. The attempt set up crampy pains in the uterus, and the debilitated patient became excited, then seven distinct cries were heard in rapid succession, and though not very shrill they were audible in the room adjacent to the patient's apartment. Two minutes later Reidhaar caught up the anterior lip of the cervix with a volsella, cries were heard again very distinctly. The fetal heart beats had fallen from 140 to 100, the mother's pulse rose from 100 before the introduction of the first dilator to 130. At length the second dilator was slipped in, and uterine contractions began. The bag was introduced in the afternoon: it was expelled at 7 p.m.; it was reintroduced, then pains became strong, and at 3 a.m., on November 24th, it was once more expelled. The fetal head lay in the first position, and delivery was promptly effected by the forceps. The child was asphyxiated, but revived after a little assistance, and was saved; it weighed close upon 5 lbs. The mother's condition greatly improved during the puerperium. This case is certainly of much interest. Cries, audibly in an adjacent room, emanated from the uterus, and the child was born alive sixteen hours later. It is hard to understand how the fetal voice, never very strong, can be heard when uttered inside the uterus, where there can be very little air, even when an instrument has been pushed in or the os opened widely. All happened an hour after the escape of the waters, when the uterus must have firmly gripped the fetus. The physiology of the cries remains obscure. If truly respiratory, the lungs must have filled out more or less when they were uttered. Then the fetus, nourished by its placenta, was able to live for sixteen hours in the uterus with its lungs more or less filled. The theories of Schwarz and Zuntz about intra-uterine and extrauterine stimulation of the fetal skin as setting up respiratory movements do not settle the main question whether intrauterine cries have been heard, which seems true, and if so, how they are produced, which is more problematical.

Prochownik's Prophylactic Diet against Dystocia.

M. R. Romne (*Presse médicale*) says that under this régime, which harms neither mother or child, a mother can go to term and deliver herself of a healthy, small infant, which thereafter thrives well. It is especially applicable to uses of contracted pelvis, and to those in which the fetus has, at previous labors, been too large for easy, unassisted birth. In women over thirty years of age, to be confined for the first time, the diminished size of the fetus renders their usually difficult labors safe and easier.

Prochownik's diet consists in allowing the woman during the last three months of her pregnancy, wasted and boiled m-eats, without sauces, fish, green vegetables, salads, cheese, butter if desired, and a very small quantity of bread. Water, soups, potatoes, the farinaceous foods and beer, are proscribed, and sugar is to be replaced by saccharin.—*N. Y. Medical Journal*.

New Treatment of Continuous Vomiting of Pregnancy.

M. R. Condamin (*Lyon médical*) advises absolute rest of the stomach with complete suppression of all liquid and solid nourishment for from eight to ten days. During this time, three or four quarts of artificial serum are injected daily, preferably into the rectum. If intolerance should appear on the part of the rectum, a few drops of laudanum may be added to the serum, or it may be administered subcutaneously. About the tenth or twelfth day, a few swallows of fluids may be allowed, and the ordinary diet may be gradually resumed. The author reports one typical case, and believes that many cases may be carried to term in this way, in which, otherwise, abortion would result or would have to be induced.—*N. Y. Medical Journal*.

The Cause of Fetal Death in Premature Loosening of the Placenta.

Schultze by placing a placenta just separated from the uterus in a basin of warm water with the uterine surface above, and filling the open vein of the excised cord with warm fluid by means of a syringe, demonstrates that pressure on the fetal vessels may be raised very greatly without a drop of the fluid flowing from the uterine surface of the placenta. So one can separate the cotyledons of the placenta without any blood escaping from the distended vessels. But if a cotyledon is cut only slightly with a knife, the blood gushes forth. Thus he proves that the loosening of the placenta from the uterine wall causes no injury to the fetal vessels: that, therefore, upon the premature separation of the placenta the fetus loses no blood and does not die of anemia. Its pallid appearance is through death from asphyxiation while its internal organs are still filled with blood. If, through contraction of the uterus, the placenta is thrown into the maternal abdominal cavity, the child cannot lose a drop of blood.—*American Medicine*.

Artificial Serum Enemata in Hyperesis Gravidarum.

Condamin (*Lyon Medical*, February 2nd, 1902) on the strength of seven or eight highly successful cases, strongly advocates

the treatment of uncontrollable vomiting in pregnancy by saline enemata. The more or less general intoxication of the organism under certain circumstances in pregnancy is the cause of hyperemesis gravidarum. The offending toxins must be expelled from the organism by subcutaneous injections, or, better still, enemata of artificial serum, which effect a true *lavage* of the blood, the stomach being kept in absolute rest for a week or a fortnight. A young woman came under his care quite prostrated by hyperemesis; emaciation was extreme, and she could not stand upright even if supported. For three weeks she had been unable to keep down any liquid or solid food, and all medical agents had failed. The temperature was low, and cerebral symptoms were suspected. Condamin judged that she was too ill to allow of the induction of abortion. He therefore tried the injection of three or four litres, about five to seven pints) daily of artificial serum in enemata of 300 grammes (a little over half a pint) frequently repeated, just as though it were a case of an anemic patient to be strengthened before an operation. Nothing was given by the mouth. Next day the urine was excreted much more freely, and the patient revived from her previously apathetic condition. For six days the treatment was continued, then a little broth was prescribed, but the patient refused to take it, dreading the vomiting and painful pyloric spasms which followed the injection of the least drop of fluid. The saline enemata gave her great comfort. On the eleventh day she felt so well as to accept a little nourishment, which was easily tolerated. Gradually the appetite came back, and she at length returned home quite cured. Since this case occurred a few years since, Condamin has never had to induce abortion in hyperemesis gravidarum. It is necessary to be thorough and to keep the stomach absolutely empty for at least a week, or, better still, better twelve days, relying on the saline enemata to sustain life. In subsequent early cases he tried feeding by the stomach at the end of four or five days, when it happened that the patient had an appetite, but the vomiting returned. After twelve days a few small draughts of liquid may be taken by the mouth and gradually increased, the enemata being for a while continued. When the rectum is intolerant a few drops of tincture of opium should be added to each enema, and if then the enemata are not well retained, subcutaneous injections will be needed.—*Journal of Obstet. and Gyn. of Brit. Emp.*

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

Congenital Cysts of the Tongue.

John Ward Cousins (*Brit. Med. Jour.*, March 1st, 1902) gives the history of two cases of this exceedingly rare affection. They usually occur in the middle line between the genio-hyoglossus muscles: or between the genio-hyoglossus and the myo-hyoid, and remain small, unnoticed and unchanged for years. Their contents consist of soft sebaceous matter, and occasionally they contain hair and masses of dental tissue. The cyst wall is lined with squamous epithelium. To the touch they feel dense and elastic. They rarely come under observation until early adult life, as they are painless, and the increase in size is so gradual as to remain unnoticed. When irritation occurs, however, inflammatory changes take place and they suddenly grow larger. Cousins' first case occurred in a woman aged 40. Shortly after birth her mother had noticed a small swelling on the tongue. At the age of 10 it was the size of a marble, at 30 the size of a small egg. When first seen by him it almost filled the mouth. On the wearing of a plate of artificial teeth the condition became unbearable. On incising the growth thick yellow material escaped. The incision was made long, and the contents being scooped out the dense cyst wall was dissected away. The patient made a complete recovery.

Cousins' second case occurred in a woman aged 36. The cyst was sublingual, extending below the thyroid region. It required two operations to remove the growth. The second was very extensive, the whole sac being completely excised by external central incision. The operation was successful, and a photograph taken seven years later exhibits the long linear scar in the centre of the neck.

Correction of Saddleback Nose by Subcutaneous injection of Paraffin.

Harmon Smith (*Laryngoscope*, February, 1902) presented three cases at the section on laryngology, New York Academy of Medicine, to illustrate the effects of subcutaneous injections of paraffin in the correction of nasal deformities. This method was first tried by Gersuny, of Vienna, in 1900. Harmon Smith first experimented on the cadaver after raising the temperature to that of the body. He also injected it into the peritoneal cavity of a rabbit without reaction. In clinical work he injected a 4 per cent. solution of cocaine before injecting the paraffin. The latter being sterilized, was heated

slightly above the melting point of 110 degree Fah. The instrument was an aspirating syringe with a large needle; and being filled, was submerged in hot sterile water until ready for use. The point of the needle was carried into the tissues well beyond the point of greatest deformity. The paraffin after injection remained plastic for about half a minute, and during this time required to be moulded into shape. The results so far were encouraging, although not attended with perfect restoration of form.

Imperforate Right Nostril.

Boulai (*Archiv. Internat. de Laryngologie*, December, 1901) gives the history of two cases of this previously unrecorded affection. Both cases were almost exactly alike; both occurred in girls of the age of fourteen. The cause is not given, but is said to be identical in each.

Rhinolith.

Bishop (*Laryngoscope*, January, 1902) adds one more to the long list of rhinoliths which have been reported. His case occurred in a woman aged 59, who was likewise troubled with chronic non-suppurative otitis media upon both sides. The rhinolith was too large and hard to be removed without crushing. The combined fragments weighed seventy-one grams. After the nasal operation the aural symptoms entirely abated under treatment.

Anomalies of the Nasal Accessory Cavities.

Max. Scheier (*Archiv. Internat. de Laryngologie*, October, 1901). The sphenoidal sinus may be double, or single, or dilated. Sometimes, though rarely, the sphenoidal may be as large as the maxillary. The frontal sinus may be double or single, and when double the size of the two may vary greatly. In one hundred skulls examined, there was complete absence of the frontal sinus in two.

Medical Treatment of Adenoids.

Lapeyre (*La Medecine Moderne*, October, 1901) reports twenty-eight cases of adenoids in which he gave tincture of iodine internally, in doses of from 18 to 60 minims per day. The patients' ages ranged from five to nine years. Iodism was rarely produced. The adenoid symptoms disappeared rapidly.

Malignant Growth of the Uvula.

F. C. Raynor (*Laryngoscope*, February, 1902). This disease is so rare that in 14,000 throat cases occurring in the Eye, Ear and Throat Hospital of Brooklyn, not one of cancer of the

uvula is reported. Hence the history of a single case is interesting. This occurred in a man aged 66. In January he had an attack of grip, of catarrhal form, the throat not being seriously affected. In March the throat became troublesome. In June he was seen by Raynor. On examination the uvula was edematous and elongated. Attached to it on the posterior surface, and terminating on a line with the velum was a nodular mass one inch long, three-fourths of an inch wide, and half an inch thick. It was slightly eroded at the end. There was no interference with deglutition or phonation. The parts were very irritable. The nose was not involved. There was no history of syphilis. The growth was removed by galvano-cautery snare. From inadvertence there was no microscopical examination. For a while the case progressed favorably, but six months later a fungous growth had recurred upon the side of the first operation.

Cicatricial Stenosis of the Pharynx.

J. J. Concanon (*Laryngoscope*, January, 1902) reports the history of a case occurring in a woman aged 35 years. She breathed with a hissing sound and articulated very feebly. For two months she had been able to swallow only fluids. The pharyngeal tissues were replaced by a cicatrix attaching the hard palate to the base of the tongue, producing a small ring in which the epiglottis was imprisoned. The velum had been destroyed. She had been under hospital treatment for years, bougies and iodide of potassium being used. The history of the case proves it to be one of hereditary syphilis. Notwithstanding this, she is a married woman, and has five living, healthy children.

Tubercular Ulceration of the Epiglottis.

W. K. Simpson (*Laryngoscope*, January, 1902). In this case a man who had suffered from tuberculosis for two years had been hoarse for several months. This culminated in intense dyspnea, for the relief of which tracheotomy was performed, without the use of an anesthetic. Dyspnea was at once relieved, and the patient made much more comfortable.

Laryngeal Tuberculosis.

Richard Lake (*Journal of Laryngology and Rhinology*, February, 1902). This is a very exhaustive article, comprising three lectures given by Mr. Lake at the Post-Graduate College, London, during the present year. Tuberculosis of the larynx is usually secondary to pulmonary disease; and in these cases a previous inflammatory condition of the larynx is a strong predisposing factor in its development. When the laryngeal

tissues are inflamed their resistance is lessened, and the tubercle bacilli more likely to find a lodgment. Chronic laryngitis, too, in a tuberculous patient is one likely to be followed by the entrance of the bacilli into the underlying tissues. Hypertrophies in the larynx frequently take on the form of mild pachydermia laryngis, affecting chiefly the intra-arytenoid commissure, and it is over this tract that the germ laden sputum passes out from the lungs. In doing so, portions of the sputum often become lodged in the rugæ of the pachydermia, and the mucous membrane being diseased and weakened, the bacilli readily find an entrance through it into the submucous tissues. The fact that in a comparatively large number of cases, tubercle bacilli have been found in adenoids removed from children, proves that they have found an entry into the organism through the anterior nares. Further still, Lake believes, from cases already recorded, that primary infection within the nasal cavity sometimes occurs as the result of traumatism. Among the diagnostic symptoms in laryngeal tuberculosis, very rarely observed in any other disease, is the sudden alteration in the pitch of the voice, from bass to tenor, or the reverse, due to sudden swelling of a cord interfering with vibration, or eating between the cords from temporary obstruction. When the epiglottis is the part involved, ingestion of solid matter becomes difficult and painful. But when the arytenoids are the seat of trouble, deglutition of fluids produces pain, and they sometimes find their way into the larynx. Subglottic swelling in laryngeal tuberculosis is usually due to involvement of the cricoid perichondrium, producing stenosis. After dealing exhaustively with the various symptoms, and the many lesions which occur in connection with this disease, he enlarges upon the treatment, medical and surgical. Local treatment should be done, if possible, three hours after meals. All pigments should be applied on cotton wool mops, never by the brush. The two best pigments are lactic acid and formalin—the first from 5 per cent. upwards, the latter from 1 per cent. upwards. Either may be gradually increased in strength: the limit being reached when swelling is produced by the application. Lake likes a combination of the two, of the formula: formalin, 7 per cent.: lactic acid, 50 per cent.: glycerine, 20 per cent.: water to 100 per cent. Fresh preparations are always the most reliable, as the formalin evaporates. Of powders for insufflation orthoform is the best. Intra-tracheal injections of a temperature of 90 degrees give excellent results. The amount should be about half an ounce. The preparation he uses now contains 3 per cent. of naphthalin, and half per cent. of oil of cinnamon in hydro-carbon oil.

In surgical treatment the cutting forceps and curettes of

Heryng, Krause, Gougenheim and Lake are used. The epiglottis is removed by galvano-cautery snare. After any of the operative measures, the lactic acid and formalin pigment should be applied. The ventricular bands can be treated by galvano-cautery puncture and curette. Tracheotomy is sometimes required for relief of stenosis. The prognosis for curing the laryngeal tuberculosis, even when the pulmonary disease is incurable, is not by any means hopeless. Many cases have been cured, in which, although the patients died ultimately of pulmonary tuberculosis, the laryngeal trouble did not recur.

Six Cases of Excision of the Larynx.

F. G. Harvey (*Lancet*, September, 1901). Details are given of the six cases. The first has remained well after operation for six years. The second survived some weeks. The third died a few days after operation. The fourth was only a partial removal, and the patient lived five months. The fifth died of pneumonia twelve months later, without any recurrence. The sixth had an enlarged gland six months after operation. This was removed, and at time of writing his health was satisfactory.

Christian Science Condemned in Germany.

Much satisfaction is expressed in Germany over the Emperor's opposition to the spread of Christian Science and similar movements, which were beginning to find support, especially in court society and among the wealthy classes. The *North German Gazette* says: "On the strength of the most authentic information his Majesty summoned President Von Windheim, of the police, and Dr. Faber, superintendent of the Lutheran Church, to tell them his opinion in regard to a nuisance which, he said, was equally disgraceful to our time and the capital of the empire. The Emperor left it beyond doubt that persons taking part in the doings of spiritualists, faith healers, Christian scientists, and similar occultists shall not be admitted at the Imperial Court." The disciples of Mrs. Eddy were not admitted to the Victoria Lyceum recently, and were told that they would never be admitted again. Herr Windheim says that when he dined with the Emperor on Thursday, his Majesty asked for suggestions for measures to check the spread of the various cults. Herr Windheim deprecated repressive measures, on the ground that they would prove merely an advertisement. The Emperor, while expressing disapproval of such morbid tendencies in emphatic terms, agreed that it would be a mistake to make martyrs of the followers of the different cults, and said that other means must be found for dealing with them.—*N. Y. Medical Journal*.

Editorials.

ONTARIO MEDICAL ASSOCIATION.

The next meeting of the Ontario Medical Association will be held in Toronto, Wednesday and Thursday, June 4th and 5th. The two important committees were formed some time ago, and have already done a large amount of work. The Committee of Arrangements, under the chairmanship of Dr. J. Milton Cotton, have got permission from the Government to hold the meeting in the Normal School building in St. James' Square, and have nearly completed their plans for the general conduct of the meeting.

Dr. John Fotheringham has been appointed chairman of the Committee on Papers and Business. We understand that this committee has had several meetings. Several papers have been promised by physicians in various parts of Ontario. Several men from Montreal, and some of the American cities, are expected, but we are not in a position at present to give details. The President, Dr. N. A. Powell, of Toronto, is working with his usual energy, and is determined to do all in his power to make the meeting a success.

ADVERTISEMENTS OF QUACK NOSTRUMS.

Dr. Palmer Burrows calls attention to the pollution of medical journals and the public press by the publication of disgusting advertisements which are illustrated by cuts and photographs of various kinds. We believe that there was a time in this country when the evils referred to existed in a most offensive form.

It appears rather strange to some of us to notice how hysterical certain of our clerical friends become at the sight of "high kickers," and other objectionable things, while at the same time they can go to their peaceful homes and read with perfect tranquillity glowing descriptions of decayed manhood, seminal loss, diseases of the womb, etc., with pictures which make such descriptions still more abominable. We fear that

neither doctors nor medical journals can do much to stop this sort of thing as long as the free and enlightened public of this great and free country continue to like it.

Dr. Burrows proposes that laws be enacted compelling the manufacturers of all proprietary medicine to print in plain type on the outside wrappers of all bottles and boxes the formula, showing the exact contents. We are not sure, however, that this would suit our enlightened public before mentioned. Such procedures might spoil the charm of the mystery of the great unknown manhood restorer. It would be too much like asking a man to take Epsom salts and castor oil instead of *magnesiæ sulphas* and *ricini oleum*. However, such legislation has come into existence in other countries, and may possibly in time become less distasteful to the *masses* of Canada.

BLACKMAILER ATTACKS PHYSICIANS.

One of the rarest and most diabolical attacks upon physicians which it has ever been our lot to record was inaugurated in Toronto a few weeks ago by Thomas McKibbon, and a woman whom he claimed as wife as an accomplice. The blackmailer had plied his vocation before to some extent successfully, but finally he fell captive through a cleverly devised scheme in the office of Dr. John S. King, Jarvis Street. The *modus operandi* of the blackmailer, as illustrated in the cases of Dr. Hawke and Dr. King, briefly stated, was to send for the doctor to visit the wife or young child at their apartments; or the wife would call at the doctor's office. After the lapse of a few days McKibbon would wait upon the doctor and charge him with having had improper or criminal connection with Mrs. McKibbon, and threaten him with criminal action, and a civil suit for \$5,000, in fact threaten him with moral assassination, unless the doctor was prepared at once to make a satisfactory settlement. Dr. King placed himself in connection with the Crown authorities, and meanwhile, in a cool, level-headed manner, planned the capture and conviction of the villain by drawing evidence from him while in his office, in the hearing of a secreted witness, sufficient

to amply prove the criminality of the attempt, after which he was arrested on 30th January, held without bail, till committed by Col. Denison on the 12th March, for trial at the Sessions. On the 20th March, when his time for trial arrived, he pleaded guilty and asked for mercy. Sentence was deferred until the 29th March, when Judge McDougall sentenced him to serve two years less one day in the Central Prison; and in doing so said, "No man is safe from the blackmailer." "I regard it as one of the most despicable crimes that could be committed." "The next blackmailer that comes before me will get the longest term the law imposes." Every member of the medical profession is equally and constantly exposed to the danger of blackmailing, and Dr. King has conferred a benefit upon his professional brethren by his courageous conflict and capture of McKibbin, the audacious blackmailer.

We understand the authorities of the Toronto General Hospital have decided to place a woman doctor on the regular visiting staff, and also to appoint two woman doctors as registrars.

THE SOUTHERN MEDICAL ASSOCIATION OF MANITOBA.—This association met at Brandon on February 26th, nearly sixty physicians of the province being present. The following officers were elected: President, Dr. L. M. More, Brandon; Secretary, Dr. Little, Alexander; Executive Council, Dr. Poole, of Neepawa, Dr. Goodwin of Elkhorn, Dr. Thompson of Douglas, and Drs. Macdonald and McDiarmid of Brandon.

CANADIAN MEDICAL ASSOCIATION.—The annual meeting of the Canadian Medical Association will be held in Montreal on the 16th, 17th and 18th days of September, 1902. The President is Dr. Francis J. Shepherd, 152 Mansfield Street, Montreal, the Local Secretary, Dr. C. F. Martin, 33 Durocher Street, Montreal, and the General Secretary, Dr. George Elliott, 129 John Street, Toronto. Dr. William Osler, Professor of Medicine in Johns Hopkins University, will deliver the Address in Medicine, and Dr. John Stewart, Halifax, Nova Scotia, the address in surgery. Arrangements are already well in hand for a very large meeting.

THE PROPOSED CONVENTION HALL.

BY SIR WILLIAM MEREDITH, CHANCELLOR OF THE UNIVERSITY OF TORONTO.

A movement has been recently organized by the Alumni Association to provide the University with a hall sufficiently large to afford accommodation for the annual commencement exercises, and for the various other meetings of an academic or social character which are held from time to time in connection with the work of the institution. The advantages of possessing such a building are obvious, and the necessity for making some adequate provision for these larger meetings is now felt with increasing force, on account of the great expansion of the University in recent years.

In the reconstruction of the buildings after the fire of 1890, the authorities found that the state of the finances did not warrant the restoration of the old Convocation Hall. Since that time the claims of the teaching departments have been so urgent as to tax to the utmost the resources of the University, and the authorities see no immediate prospect of providing a public hall out of the endowments or revenues. It would appear that, if such a building is to be erected in the near future, it must be done through private benefaction.

The Alumni Association has issued an appeal to the graduates, undergraduates and friends of the University to provide the necessary funds by subscription, and I take the liberty of warmly commending the project to your favorable consideration, and of urging you to aid in its realization by your personal contributions as well as by enlisting the interest and liberality of friends of the University.

It is a project in which the graduates of all faculties are interested, and with a united effort on the part of all it should not be difficult to collect the sum required, which has been estimated at \$50,000. I understand that the graduate members of the faculties have already subscribed \$6,000 of this amount, and I venture to hope that the generosity and self-sacrifice represented by this subscription will be appreciated and imitated by the graduates in general.

I trust that the movement may be crowned with abundant success, and that we may have, as its result, an edifice which will not only serve a most useful purpose, but will also stand as a monument to the loyalty and affection of our graduates.—*Univ. of Tor. Monthly.*

Personals.

Dr. Frederick Winnett, Toronto, will sail for England early in May.

Dr. W. A. Mearns, Hanover, spent the Easter holidays in Toronto.

Dr. George A. Bingham spent a portion of his Easter holidays in Kingston.

Dr. J. Fennell McKee (Tor. '94), of Petrolia, was in London, Eng., in March.

Dr. Frederick C. Hood, of Toronto, will sail for England the last week in April.

Dr. G. L. Milne, of Victoria, B.C., spent a few days in Toronto in the early part of April.

Dr. R. Montgomery, of Chicago, spent a few days in Toronto in the latter part of March.

Dr. Charles Carter, of Grand Valley, was married, April 2nd to Miss Ambrose, of Hamilton.

Dr. Friend R. Eccles, of London, Ont., was married to Miss Jessie Dusty, St. Mary's, April 7th.

Dr. Jas. F. D. Ross, of Toronto, has returned from the Bahama Islands, and resumed practice.

Dr. Harry B. Anderson, of Toronto, is still in New York, working at clinical medicine and pathology.

Dr. J. O. Orr, of Toronto, has been elected Second Vice-President of the Toronto Industrial Exhibition.

Dr. Harvey McKnaught (Trin. '97), of Los Angeles, California, paid a visit last month to his friends in Toronto.

Professor William Osler came to Toronto, March 15th, to attend the funeral of his sister-in-law, the wife of Mr. Justice Osler.

Dr. L. F. Miller, Toronto, is away on an extended trip to St. Augustine, Florida, Charleston, South Carolina, and Atlantic City, New Jersey.

Dr. A. S. McCaig, of Sault Ste. Marie, has been appointed Associate Coroner for Algoma: Dr. J. W. S. McCullough, Alliston, Associate Coroner for the County of Simcoe: and Dr. D. Fraser, Lakeland, Associate Coroner for the County of Peterboro'.

Dr. R. J. Dwyer, of this city, leaves for Europe early in May and expects to return in September.

Dr. Adam H. Wright is expected to return from a visit to New York and Atlantic City in a few days.

Dr. Richard Carney has been appointed City Physician to Windsor; and Dr. J. A. Ashbaugh, Medical Health Officer of the same city.

Mr. M. J. Haney has been appointed by the Ontario Government, Trustee of the Toronto General Hospital in the place of Mr. John Ryan, deceased.

Dr. John B. Murphy, of Chicago, has received the Lactare medal from the University of Notre Dame, Indiana, for "signal success in medicine and surgery."

Dr. Don. Armour, Senior Demonstrator of Anatomy, University College, London, England, has been appointed Senior Assistant Surgeon to the Belgrade Hospital for Children.

Dr. D. Gibb Wishart, of Toronto, spent a portion of March in New York and Philadelphia. While in New York he attended the meeting of the American Laryngological Society.

The following constitute the Sanitary Committee of the Industrial Exhibition: Drs. A. Lynd, Herbert Hamilton, Edmund E. King, W. H. B. Aikins, and Messrs. Gibbard and Hargreaves.

Dr. Harry J. Watson (Trin. '96), who has been serving in the American Army Medical Service in the Philippines during the last two years, has been appointed Chief of the Medical Department of the largest Brigade Hospital in the Philippines.

Dr. Michael Joseph Kelly, a graduate in medicine and law, University of Toronto (M.D., LL.B.) who has been Inspector of Public Schools for more than thirty years in Brantford, has resigned, his resignation to take effect upon October 1st. next.

Dr. Harry W. Spence, Toronto, returned to London, England, from China and Japan a few weeks ago. Soon after his arrival he received an appointment from the British Government as medical officer for one of the concentration camps in Natal, and sailed from Southampton, March 18th, for South Africa.

Dr. W. H. Drummond, the author of "The Habitant" and "Johnny Courteau" will receive the honorary degree of LL.D. at the June convocation of the University of Toronto. He will also lecture in Massey Hall, April 24th. The talented and genial doctor has many friends in Toronto who will doubtless be glad to have this opportunity of seeing and listening to him again.

Obituary.

ADAM DICKSON WAGNER, M.D.

Dr. Wagner, of Cornwall, a graduate of McGill University, 1872, died February 13th, aged 53.

EDWARD PAYSON GORDON, M.D.

Dr. E. P. Gordon, formerly of Toronto, died at San Francisco, Cal., March 30th, aged 35. He studied medicine in the Toronto School of Medicine and the reorganized Faculty of Medicine, University of Toronto, graduating M.D. University of Victoria College in 1890.

F. H. THOMPSON, M.D.

Dr. Thompson, a graduate of Trinity, son of Mr. Thomas Thompson, Rosedale, Toronto, died of typhoid fever at Seattle, Wash., March 22nd. He was engaged in the United States Naval Service and was surgeon on the Pacific coasting steamer *Patterson*.

CHRISTIAN FENGER, M.D.

Dr. Fenger, the well known surgeon of Chicago, died of pneumonia, on March 7th, after an illness of one week, aged 62. He was born in Copenhagen, Denmark. While a student he served as a surgeon in the war between Denmark and Germany. He came to America in 1877, and at once settled in Chicago. He soon acquired an international reputation, and was generally recognized as one of the ablest surgeons in the United States.

JAMES TEMPLETON M'KILLOP, M.D.

Dr. McKillop died at his home in Wardsville, April 6th, 1902, aged 42. He took his medical course in Kingston, graduating M.D. in Queen's University, and also in Trinity University in 1889. Soon after graduating he located in Wardsville, Middlesex County, where he practised with much success until the time of his last illness.

EDWARD MOTT MOORE, M.D., LL.D.

Dr. Moore, of Rochester, died of bronchitis, March 3rd, aged 88. We quite agree with the *Journal of the American Medical Association*, that the following words respecting a deceased English physician, may well be used for Dr. Moore: "Eminently distinguished for science. Beloved for the simplicity of his manners and the benevolence of his heart. Respected for his inflexible integrity. In all the relations of his professional life he was sagacious, cordial, diligent and humane." Both Drs. Moore and Fenger were well known to the profession of this Province through work done in connection with the Ontario Medical Association.

W. S. MUIR, M.D., L.R.C.P., L.R.C.S. (Edin.).

Dr. Wm. Muir, of Truro, Nova Scotia, was probably better known by physicians of Quebec, Ontario, Manitoba, the North-West Territories, and British Columbia than any other doctor in the Maritime Provinces. We learn with much grief from the *Maritime Medical News* that Dr. Muir died of appendicitis March 10th, after an illness of four days, aged 49. A gangrenous appendix was removed on the morning of the 9th.

He was born in Truro, and received his medical education in Dalhousie College, graduating in 1874. After three years, part of which time he was engaged in post graduate work in Edinburgh, he commenced practice in his native town, and remained there until the time of his death.

He was best known to the Westerners through his connection with the Canadian Medical Association, of which he was one of the strongest and most enthusiastic members. We are quite in accord with the *News* in its statement, that "His frank and genial nature, his transparent honesty, and his whole-souled devotion to his profession, gained him the confidence of the public, and the esteem of his colleagues." At the time of his death he was President of the Maritime Medical Association, past Vice-President of the Canadian Medical Association, Fellow of the New York State Medical Society, and held many positions of trust in connection with Eastern Examining Boards.

We take from the *News* the following quotation from the *Truro Daily News*: "From early morn (day of funeral) flags were at half-mast, and citizens moved to and fro in a way that plainly indicated that a great calamity had fallen on our town. There was a feeling that Truro had sustained an irreparable loss, which was intensified as the time appointed for the funeral services drew near. At that hour shops and places of business,

public schools, and private offices were closed, and the streets were lined with spectators. A pathetic part of the long funeral cortege was the sight of Dr. Muir's empty carriage, drawn by his faithful horse Billy, led by the ever faithful groom, Willie Wilmot, that followed immediately in the rear of the hearse."

PROFESSOR KAPOSI.

We regret to say that the great dermatologist, Kaposi, is no more. A telegram from Vienna states that he died from apoplexy on Thursday last, at the age of sixty-five. Dermatological science owes much to the research and painstaking investigation of a lifetime, which he had devoted to diseases of the skin. Kaposi and his father-in-law, the great Hebra, accomplished much in making sure foundations for this branch of medical science. Kaposi was not only a great student but a famous teacher, and as a physician his reputation was world-wide. His publications are said to exceed 150 in number. With the death of Professor Moriz Kaposi, Vienna University loses one of its most distinguished men.—*Medical Press and Circular*.

EZRA HURLBURT WILLIAMS, M.D., L.R.C.P. Lond.

We record with very deep regret the death of one of our ablest and most successful Canadian graduates in a far distant portion of our big empire. Dr. E. H. Williams died at his home in Melbourne, Australia, January 13th, 1902. He graduated M.D., Trinity, in 1884, and was for a year one of the resident physicians in the Toronto General Hospital. He was there recognized as a man of superior parts who was likely to succeed. After leaving Toronto he went to Australia, and settled in the city of Melbourne, where he continued in practice until the time of his last illness. We have been told by one who knows that city well, that Dr. Williams was one of the most successful practitioners in Australia, although he only reached the age of 38. As to the particulars of his last illness we know nothing. The writer of this notice received a letter from him a few months ago, which one would suppose from its tone was written by a person in the best of health and spirits.

We regret much to announce the death of the wife of Dr. John B. Fraser, of 655 Queen Street East, Toronto, which occurred April 10th, 1902.

Correspondence.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW :

SIR,—Is it not high time that our medical journals and medical associations should discuss the advisability of such legislation as shall prevent the pollution of medical journals and the public press by the disgusting advertisements that have become an intolerable nuisance?—"decayed manhood," "seminal losses," and such like, not to mention the uterine organs and their diseases, set forth by plates and printed descriptions. Is it not time, as well, that legislation insist that the formulæ shall be printed in plain type on the outside wrapper of every bottle and box of patent and proprietary medicines? When the gall of the adventurer has gone so far as to advertise a certain cure for cancer, presenting testimonials in support and selling to the poor dupes at ten dollars a bottle a stuff costing seventy-five cents or a dollar, and actually without good effect, not to speak of the myriad of less presuming and equally worthless trash for every conceivable ailment, bought in prodigal quantities, is it not time that the nefarious business got a set-back? If the ingredients were known the self-inflated bubble would burst; common decency would be respected; the medical profession get a chance in the race, and the nervous, credulous public get something more than whipped sillibut. Besides benefiting those immediately interested, it would be a relief to those weak-minded persons and silly old women who spend their brains in writing and their time in making affidavits, whose whole end is to benefit the manufacturer of the too often useless stuff.

Yours truly,

P. PALMER BURROWS.

Medical Matriculation by Act of Parliament.

A discussion took place one afternoon last week in the Quebec Legislature upon a bill introduced by a member thereof, to permit medical students who commenced study prior to 1899 and who omitted to pass their preliminary examination, to dispense with it. The Hon. Mr. Flynn, leader of the opposition, ridiculed the measure, stating that if this sort of thing were to continue, classical education for entrance to the professions had better be abolished. Hon. Dr. Guerin moved the six months' hoist, which was adopted by a vote of forty-five to fifteen.

Book Reviews.

A Laboratory Handbook of Physiologic Chemistry and Urine Examination. By CHARLES G. L. WOLF, M.D., Instructor in Physiologic Chemistry, Cornell University Medical College, New York. 12mo. volume of 190 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$1.25 net. Toronto: J. A. Carveth & Co., Canadian Agents.

The object of this book is to supply to students and practitioners of medicine a guide to a course in physiologic chemistry and the examination of the urine and the contents of the stomach. The first part of the book is taken up with simple exercises in physiologic chemistry, which will give an elementary insight into the chemical side of physiologic processes.

A Laboratory Course in Bacteriology. For the use of medical, agricultural and industrial students. By FREDERIC P. GORHAM, A.M., Professor of Biology, Brown University, Bacteriologist to the Health Department, Providence, R.I. 12 mo. volume of 195 pages, with 97 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$1.25 net. Toronto: J. A. Carveth & Co., Canadian Agents.

Bacteriology is essentially a laboratory study. It is also a subject of very general scientific interest. Courses in bacteriology are no longer confined to the medical schools, but are being introduced into colleges and agricultural and industrial schools. This volume has been prepared as a guide to the practical details of laboratory work.

Atlas and Principles of Bacteriology and Text-Book of Special Bacteriological Diagnosis. By PROF. DR. K. B. LEHMANN, Director of the Hygienic Institute in Wurzburg, and R. O. NEUMANN, Dr. Phil. and Med., Assistant in the Hygienic Institute in Wurzburg. Authorized translation from the second enlarged and revised German edition. Edited by George H. Weaver, M.D., Assistant Professor of Pathology, Rush Medical College, Chicago. W. B. Saunders & Co., 1901. Toronto, Ont., Canada: J. A. Carveth & Co. Price, \$5.00.

Saunders' Hand Atlas series is already familiar to our readers in many departments. This book is in two volumes. Volume I, the Atlas, consists of 69 plates, which illustrate the form and color of the gross and microscopic preparations of a large number of the best known micro-organisms. Volume II, the Text, is divided into a general part, which furnishes a condensed survey of the principal properties of bacteria, so far as they are of practical value, especially so far as they are of diagnostic aid, to which is appended a short list of media, rules for stains, etc., and a special part gives, as far as possible, in a natural botanical arrangement, a complete description of the important varieties, with constant references to the less important ones which for any reason are worthy of notice. The authors have succeeded in bringing a certain amount of order out of the bacteriological chaos, and made it possible for the student to get some idea of the kind of germ with which he is dealing. We heartily recommend it to all students of the subject.

The American Year-Book of Medicine and Surgery for 1902. A yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D. In two volumes—volume I, including *General Medicine*, octavo 700 pages, illustrated; volume II, *General Surgery*, octavo, 684 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1902. Per volume: cloth, \$3.00 net; half morocco, \$3.75 net. Toronto: J. A. Carveth & Co., Canadian Agents.

The plan of issuing the Year-Book in two volumes, inaugurated two years ago, met with such general favor with the profession that the publishers have decided to follow the same plan with all succeeding issues. Each volume is complete in itself, and the work is sold either separately or in sets. The contents of these volumes, critically selected from leading journals, monographs, and text-books, is much more than a compilation of data. The extracts are carefully edited and commented upon by eminent specialists, the reader thus obtaining, not only a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, but also the invaluable annotations and criticisms of the editors, all leaders in their several specialties. As usual, this issue of the Year-Book is not lacking in its illustrative feature; for, besides a large number of text-ents, the Surgery volume contains five, and the Medicine volume four, full-page inserts. In every way the Year-Book of 1902 fully upholds, if it does not strengthen, the reputation won by its predecessors.

The Principles of Hygiene: A Practical Manual for Students, Physicians and Health Officers. By D. H. BERGEY, A.M., M.D., First Assistant Laboratory of Hygiene, University of Pennsylvania. Octavo volume of 495 pages, illustrated. Philadelphia and London: W. B. SAUNDERS & Co., 1901. Cloth, \$3.00 net. Toronto: J. A. Carveth & Co.

This book is intended to meet the needs of students of medicine in the acquirement of a knowledge of those principles upon which modern hygiene practices are based, and to aid physicians and health officers in familiarizing themselves with the advances made in hygiene and sanitation in recent years. The book is based on the most recent discoveries, and represents the practical advances made in the science of hygiene up to date.

Among the important subjects considered are ventilation, heating, water and water supplies, disposal of sewage and garbage, food and diet, exercise, clothing, personal hygiene, industrial hygiene, school hygiene, military and naval hygiene, habitations, vital statistics, disinfection, quarantine, etc. The idea of the book is to give the reader a clear understanding of the general principles of this broad subject. The rapid strides made in our knowledge of the entire subject has rendered such a book, reflecting the more recent discoveries, a necessity to physicians and students of medicine.

The book contains all the latest regulations regarding maritime disinfection, certain additions having recently been made on account of the existence of plague. On page 61 the air supply to hospitals is cut shorter than it should be, and less than the author's remarks would lead us to expect.

A Manual of Syphilis and the Venereal Diseases. By JAMES NEVINS HYDE, A.M., M.D., Professor of Skin, Genito-Urinary and Venereal Diseases, Rush Medical College, Chicago; Dermatologist to the Presbyterian, Michael Reese and Augustana Hospitals of Chicago; Consulting Dermatologist to the Chicago Hospital for Women and Children and to the Chicago Orphan Asylum; and FRANK HUGH MONTGOMERY, M.D., Associate Professor of Skin, Genito-Urinary and Venereal Diseases, Rush Medical College, Chicago; Professor of Skin and Venereal Diseases, Chicago Clinical School; Dermatologist to St. Elizabeth's Hospital, Chicago. Second edition, revised and enlarged, with fifty-three illustrations in the text, and nineteen full-page lithographic plates. Philadelphia: W. B. Saunders & Co.

The second edition is a very thorough revision of the first, and much new material has been added. This is one of the most complete and concise manuals that we know of. The pith of the subject is here and references are free to the more elaborate treatise. We hope that in a subsequent edition that chapter on chancre will be modified by omitting the word "sclerosis" and substituting some word like "lesion." The "sclerosis" has been the cause of much poor diagnosis, both from its absence and presence. At the earliest period of development, when one has to begin his treatment, there is the strongest resemblance between a chancre and an infecting lesion, but there is no sclerosis there. It develops sooner or later. We know this is a common error, but would like to see a change. The work is one that any physician can refer to with the utmost confidence the advice sought will be found and of the quality that can be depended upon. The technique, illustrations and press work are of the very best.

Genito-Urinary Diseases and Syphilis. For Students and Practitioners. By HENRY H. MORTON, M.D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island College and King's County Hospitals and the Polhemus Memorial Clinic, etc. Illustrated with half-tones and full page color plates. Pages xii-372. Size, 9½ by 7 inches. Price, extra cloth, \$3.00 net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry street.

We feel that with the rapid multiplication of new work, together with the too frequently appearing complication of old and older ones, that the poor purchasing physician has a surfeit. In many lines new works are demanded, but they must be new, up to date, and contain material that will be of value. We are sorry that we cannot herald the present volume loudly. It is an overlander, and really does not contain anything new. The publishers have been kind to the author, however, and produced the volume in their usual most creditable style.

Selections.

SURGICAL HINTS.

In spinal cocaine anesthesia the abolition of pain may be delayed for some time. It has been observed to come on as late as forty minutes after the injection.

If obliged to leave a catheter in the bladder, always avoid employing a metallic instrument. Their rigidity and their tendency to become rapidly incrustated render them soon harmful.

In burns of the mouth or throat, particularly in children, give frequent small doses of codliver oil, or sweet oil, with lime water. It will act both as food, and, as a form of Carron oil, as a dressing.

Sugar placed in the water, or the use of simple syrup, will greatly facilitate the removal of plaster-of-paris from the hands after applying plaster dressings. The use of sweet oil is also serviceable for this purpose.

Surgeons have now quite generally abandoned the procedure of washing out the pleura after operations for empyema. Washing out does not seem to shorten the period of recovery, and it may, if repeated, cause a tendency to the establishment of a permanent fistula. It may also interfere with the formation of adhesions, thus preventing the union of opposite layers of the pleura.

In acute abdominal conditions, such as strangulation, obstruction or appendicitis, it is wise to withhold opium in order not to mask the symptoms and induce a false sense of security. But as soon as an operation has been decided upon, if there is to be any delay in its performance, it would be cruelty then to abstain from its use. It will relieve pain, thus diminishing shock, and will make the induction of anesthesia more easy.

When, after a laparotomy, there is evidence of intestinal atony, the bowels must be made to move. Purgatives, either mercurial or saline, may prove inefficient, and enemata must be resorted to. A high tube must be used. The most effective substances are the saturated solution of Epsom salts, in quantities of a pint or more, or the mixture of Epsom and Glauber salts, each two ounces, with two drachms each of turpentine and dried oxgall in a pint of water.—*International Journal of Surgery.*

Surgical Treatment of Pruritus Vulvae.

Tavel (*Rev. de Chir.*) advocates resection of the internal pudic nerve in the treatment of obstinate vaginismus and pruritus of the vulva, and reports two cases in which he applied this treatment with good results. This method of dealing with painful affections of the external genital organs of the female, though first practised by Simpson, of Ediuburgh, forty years ago, has not, it seems, been repeated by other surgeons for vaginismus, although it has occasionally been tried for the relief of certain painful forms of chronic urethrocystitis. The author discusses at length the surgical anatomy of the internal pudic nerve and its different branches, and describes his method of operating on this nerve. The external incision on either side of the perineum, which is about four inches in length, is carried directly from before backwards in the middle of the fossa between the tuberosity of the ischium and the outer margin of the anus. The nerve—the course of which is indicated by the pulsations of the accompanying artery—is carefully separated from this vessel and followed backwards to its trunk. The main divisions supplying the muscles of the vulva and the painful area of integument are divided near their origins and the peripheral portions of the nerve twisted and torn away. In this operation care must be taken to avoid the inferior hemorrhoidal nerve and the anal twigs of the deep perineal branch.—*British Medical Journal*

Rheumatism.

Every now and then some one bobs up and extols quinine, black cohosh or wintergreen in the treatment of acute rheumatism, when a long-extended experience by the medical world in general has abundantly illustrated the fact that the salicylates stand far and above all other agents or medicaments for the relief of this affection. And of the salicylates the salicylate of sodium has long had the preference.

If the salicylate of sodium be given to an adult in quantities of from ten to fifteen grains every two or three hours (some recommending as high as one hundred and twenty grains daily), and the patient held under the influence of the drug for a number of days, suffering is greatly curtailed and even almost entirely done away with, and the course of the attack much abbreviated.

This outcome will be observed in the great majority of cases; nothing of even approximate virtue has been advanced; hence it is questionable treatment to ignore these facts and go "beating about the bush" with quinine, black cohosh and wintergreen.—*Clinical Review.*

The King and the Treatment of Consumption.

As is now known over the world, His Majesty King Edward has had placed at his disposal the sum of £200,000 by Sir Ernest Cassel, whose generosity must stamp him as one of the benefactors of mankind. The money was to be utilized for the benefit of the sick and poor according to the King's discretion, and the announcement that it is to be devoted to the building and maintenance of a Sanatorium for Consumptives is the very strongest evidence (if evidence were required) of His Majesty's wisdom and thoughtfulness in regard to medical relief. For a great many years the King has taken a prominent part in all matters pertaining to the nation's health, and the principal schemes which have been established with a view to mitigating human suffering have been instigated and carried to success by His Majesty's own efforts. Few monarchs can claim such a distinction. It may be pointed out also that not only is the King's interest in these matters based on his general knowledge of the needs of his subjects, but it is also true that he is well acquainted with the subjects of tuberculosis, cancer, etc., in their technical aspects. He has often studied the bacilli of tuberculosis and other diseases under the microscope, and is thoroughly conversant with the main facts of their pathology. The deep interest which His Majesty takes in the advancement of medical science is an object lesson which it would be well if every medical man amongst us would daily lay to heart.—*The Medical Magazine*.

Schleich Method of Producing Local Anesthesia.

Inquiry has been made as to the more detailed steps of the Schleich method of local anesthesia, which is now having so much popularity for all kinds of minor work. (A condensed note regarding this method was given in this department in a recent issue.) The commonly employed Schleich solution has the following composition:

R	Cocain hydrochlor.	gr. ii.
	Morphin hydrochlor.	gr. ss.
	Sodium chlorid.	gr. iv.
	Sterile distilled water	℥ iv.
	Sol. carbol. acid (5%)	gtts. ii.
M.		

An ordinary hypodermic syringe may be used, but it is more satisfactory, especially if the field of operation be of more than an inch or two in extent, to employ a larger and stronger syringe capable of holding from two to four drams of the solution. The point of the needle is not to be introduced slantingly, as when giving an ordinary hypodermic injection,

the purpose being not to introduce the solution into the general subdermic adipose tissue, but rather the point should be introduced almost parallel with the skin and running just immediately beneath it. Then, with a strong syringe an area of two or three inches may be infiltrated. The injection should be made evenly and gradually, when a whitish spot, the so-called wheal, absolute anesthetic, will occur. The anesthesia, with the strength of solution above given, will remain from fifteen to twenty minutes. If a larger area is needed, another injection may be made just at the edge of the first "wheal" in any direction desired, and the area of anesthesia may thus be extended over a considerable surface; but it must be borne in mind that not above three ounces, or possibly four ounces in particular cases, of this strength of solution is to be injected at a sitting. The amount of morphine and cocaine will at once show that there is a definite limit beyond which it is not safe to go. The quantity of cocaine may be increased or diminished should it be desired to use a stronger or weaker solution; but the quantity injected, the solvent remaining the same, would then have to be diminished or increased accordingly.

It can hardly be said that Schleich's infiltration anesthesia savors of indefiniteness, or that it is still in the stage of experiment. The method has been used for several years, and very extensively by some operators, who, of course, with increased experience have become expert both in method and in the selection of cases adapted or adaptable to this means of painless operations of limited extent and short duration.—*The Clinical Review*.

For Ascarides.

Progrès médical for February 1st attributes the following formulæ to Comby:

R. Santonica,	} of each	30 grains:
Corsican moss,		
Calomel		3 "

M. Divide into two powders and give one in the morning for two days.

It also ascribes this to Smith of Moscow:

R. Santonin	3 grains:
Oil of sweet almonds	2 ounces:
Tincture of santonica	4 drops.

M. A tablespoonful twice daily.—*New York Medical Journal*.

An Antineuralgic Ointment.

The *Gazette hebdomadaire de médecine et de chirurgie* for February 27th ascribes the following to G. Menier:

R	Extract of belladonna,	} of each . . . 180 grains;
	Petrolatum,	
	Powdered opium	30 "
	Perfume, with essence of thyme	q.s.

M. Rub in thrice daily; the frictions should last for from five to ten minutes and be desisted from so soon as the face blanches.—*New York Medical Journal*.

On Simultaneous Ectopic and Intrauterine Pregnancy.

Hanna Ch. Vilsin (*Mittheil. aus der Gyn. Klinik in Helsingfors; Ref. Centralbl. fuer. Gyn.*, January 11, 1902).—By a careful study of the literature—going back to the eleventh century—the author was able to collect sixty-eight unimpeachable cases of this condition, to which he adds one observation of his own. Some of the most interesting results of his painstaking investigations are the following: In twenty cases both children reached entirely or almost full term. Interruption of the intrauterine pregnancy has a by far slighter effect upon the further development of the extrauterine pregnancy than *vice versa*. Disturbances in the blood circulation in close neighborhood of the uterus, caused by the rupture or abortion of the pregnant tube, are in many cases responsible for the premature interruption of the intrauterine pregnancy. In twenty-five cases the ectopic fetus reached full term. This fact is striking. Engstrom does not consider this a mere accident, but believes that the increased afflux of blood to the pelvis, on account of the intrauterine pregnancy, improves at the same time the blood supply of the pregnant tube, thus promoting the development of the ectopic fetus. The diagnosis is always very difficult. During the first three months the diagnosis will be either intrauterine pregnancy complicated by pyosalpinx, or simple extrauterine pregnancy, the uterus always being somewhat enlarged in this condition. In a later stage it will be more than difficult to avoid the wrong diagnosis of a retroflexion of the pregnant uterus or intrauterine pregnancy complicated by ovarian tumor or pyosalpinx. The treatment of this condition is, of course, identical with that of ectopic pregnancy in general. [The possibility of such a condition may prevent those who are too ready with the use of the uterine sound from using it for a diagnostic purpose in cases of suspected ectopic pregnancy.—Ed.]—*Interstate Medical Journal*.

Miscellaneous.

An Operation on the Operator.

M. Doyen's newspaper report of his operation on Radica and Doodica has been made the subject of an amusing parody in that eminently respectable paper, the *Temps*. The author records how he operated upon Dr. Doyen, whose exceptional cerebral activity had doubled his personality.

"By ill luck the scissiparity was incomplete, the two persons remained attached to one another by a membrane extending from the umbilicus to the sternum. To distinguish them it was necessary to call one Radoyen, and the other Doyenka. This at first caused no inconvenience, but with increase of age troublesome disagreements, grave incompatibilities of character and temper became manifest between the two doubles. . . .

It was determined to separate them, and my scientific aid was invoked. The operation did not last twenty minutes. I had invited my friends, the phenomena of Barnum and Bailey's circus, who are now indispensable to me. They were of the greatest use to me, particularly the man with the elastic skin. By stitching the skin of his abdomen to that of the abdomen of the living skeleton, I constructed artificial Siamese twins on whom I made most interesting preliminary experiments. There were also present the armless man, who wrote at my dictation with his foot, and the pincushion man, who played a modest but indispensable part, as will presently be seen. The two monsters, Radoyen and Doyenka, were placed upon a table invented by me, covered with a sheet sterilized by means of a preparation which is my property. I took up my position on their right, so that the cinematograph should lose nothing either of my movements or my features. The superficial part of the portion of the membrane was formed by a cartilaginous plate of a certain thickness which I divided with a bistoury made according to my directions. As is usual in my clinic, anesthesia was produced by means of chloride of methyl. As I ceased to require my needles, my scissors, and my forceps, I stuck them into the cheeks of the pincushion man, that is what he served for. Underneath the cartilaginous plate I found, as was to be expected, a bridge of liver, seven centimetres in breadth by four in thickness, traversed by a large number of arteries, arterioles, veins, and venules. This was the time or never to use my original method of hemostysis. I therefore performed extemporaneous crushing of the hepatic pedicle by means of my large double lever forceps from Creusot, which weighs a million tons, but which can be set in motion by one

finger, and which exerts a pressure of 600,000 kilos. . . . Happily for posterity the operation was completed before the cylinders of the cinematograph were exhausted. Radoyen was first carried to a neighboring table, a compress invented by one of my usual assistants was placed in the wound, and the skin provisionally brought together with toothed forceps, of which I recently published a drawing. Then came the turn of Doyenka. I sutured his abdominal wall, taking care to leave in a small drain of gauze sterilized by my ordinary attendant whom I cannot recommend to my *confrère*. The operation had succeeded. As for Radoyen and Doyenka, I hope they will get over it. An immense concourse of people, which I estimate at seven millions, was waiting at the door of the hospital, and I had to escape from their acclamations. There were also seen under the windows twelve or fifteen hundred automobiles, among which could be recognized those of the King of the Kymris, of the dethroned Emperor of the Aztecs, of the Grand Duke of Ganzeberg, of Lord Untrue, of the Marquis de Las Pesetas ey Cambio, of Jobard Pasha, of the Ambassador of Andorre, of the Fencer Spada-Blanca, of Mademoiselle Suzanne Chaste the exquisite story-teller, in short all Paris, including the private secretary of the Ministry of Submarine Communications, who had come in a cab. The Santos-Dumont No. 17,964 floated above my head, performing a thousand sublime evolutions. The King of the Air was even good enough to ask me to dinner in his boat, but the wind not being particularly favorable, after a masterly descent I decided to go home by the tram."

The self-assertion and eagerness for notoriety which made themselves felt in every line of the original are scarcely exaggerated in this clever skit.—*The Practitioner*.

Pork and Piety.

"They have no sense, men haven't," said Mrs. Hankey: "that's what is the matter with them." "You never spoke a truer word, Mrs. Hankey," replied Mrs. Bateson. "The very best of them don't properly know the difference between their souls and their stomachs, and they fancy they are wrestling with their doubts when it is really their dinners that are wrestling with them. Now, take Bateson himself," continued Mrs. Bateson. "A kinder husband or better Methodist never drew breath, yet so sure as he touches a bit of pork, he begins to worry himself about the doctrine of election till there's no living with him. And then he'll sit in the front parlor and engage in prayers for an hour at a time, till I say to him: 'Bateson,' says I, 'I'd be ashamed to go troubling the Lord with a prayer, when a pinch of carbonate of soda would set things straight again.'"—*The Farringdons*.

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TWO CASES OF REMOVAL OF THE GALL-BLADDER BY FINNEY'S METHOD.

By INGERSOLL OLMSTED, M.B., TORONTO.

Physician to the City Hospital, Hamilton, Ont.

Recently while in conversation with Dr. J. M. T. Finney, Associate Professor of Surgery at Johns Hopkins Hospital, that gentleman described to me an operation for disease of the gall-bladder, which he had been lately practising, and which he had given a description of before the Johns Hopkins Hospital Medical Society, when reporting some cases which he had operated on for cholecystitis.

As the gall-bladder is known to have little or no use in the human system, it seems as rational to remove a diseased gall-bladder as it is to remove a diseased appendix.

Many operators have been in the habit of removing the gall-bladder in case of stone, where it has been found difficult to attach it to the peritoneum, and drain it in the usual way. In these operations the gall-bladder has been separated from the liver, the cystic duct traced down and ligated, and a gauze drain has been placed over the abraded area of the liver, as well as one extending down to the stump of the duct. Frequently in these cases there has been a leak from the duct, forming a fistula, which took some time to close.

Dr. Finney, in his operation, leaves a flap on either side of the liver attachment of the gall-bladder, composed of the sero-muscular coats, sufficient when the two are approximated to completely cover up this abraded area. The stump, on the

other hand, is treated like an appendix stump, thus preventing any ordinary possibility of a leak from this source.

Any one conversant with gall-bladder surgery can always be certain of absence of stones in the common duct, as this is palpable in the whole of its course, and any stone so small as to escape detection could pass as readily through the common duct into the intestine as through the cystic duct into the gall-bladder.

In cases, however, where there is obstruction to the outlet of the common duct, through neoplasm, the gall-bladder may be useful to form an anastomosis with the duodenum in order to obviate such an obstruction. These cases, however, are rare, and at best are unfavorable ones for operation.

When the gall-bladder is diseased it is best to get rid of the whole organ without opening its cavity, thus precluding the possibility of infection from that source.

The following two cases illustrate the success of this method of treatment:

In the first case I followed Dr. Finney's description, with the exception of one or two small details. The history is as follows:

Mrs B., aged 67, widow, first consulted me four years ago, for pain in the left hypochondrium. There was some rigidity of the abdominal muscles, with tenderness over the region of the pain, as well as over the upper part of the right rectus: there was a slight rise in temperature, increased frequency of pulse and constipation. Rest in bed for a few days, with mercurial and saline laxative, relieved the symptoms. There was no palpable tumor, but for several days slight tenderness remained over the region of the gall-bladder, as well as on the left side just beneath the edge of the ribs.

She is a small spare woman, rather a nervous temperament, and has been troubled for years with constipation and hemorrhoids. She has had ten children, eight of whom are alive. She is a moderate eater, and never has used spirituous liquors.

During the last four years she has had slight returns of the pain, which was invariably referred to the left side. In September, 1901, I was called and found her suffering from her old trouble. Her condition was much the same as on previous occasions. She had not lost flesh since last seen. Her temperature was $99\frac{1}{2}$ and pulse 80. She had sickness of the stomach and pain in the left side of the abdomen under the ribs, but no vomiting. In palpating the abdomen the recti were found somewhat rigid, and a small swelling could be felt beneath the right rectus, extending within about two inches of the umbilicus. On manipulating this swelling she had pain, which she referred to the left side, and not over the region palpated.

With deep inspiration this lump could be felt to descend. The abdominal muscles were very thin, and a distinct peristalsis of the bowels could be seen. Rest in bed with a laxative relieved her condition so much that on the third day after the attack, when making my call, I found her out of bed and down stairs. An operation was advised.

She called me again November 22nd. During the last two months she had lost nineteen pounds, and had been troubled with little gripy pains in the upper and left side of the abdomen, she was much weaker and had but poor appetite.

The notes made at this time are as follows :

The abdomen is rather flat, skin wrinkled, frequent peristalsis, apparently of the small bowel, is seen. On the right side beneath the rectus there is a nodular mass which is continuous with the liver, about two and a half inches in length and two inches in breadth. This tumor moves downwards with inspiration, and is quite tender to touch, and when palpated gives pain in the left side. Nothing abnormal can be detected in any other part of the abdomen. The heart and lungs are normal. The urine contains neither albumin nor sugar.

She was removed to the city hospital.

November 26th, 1901 : Incision was made about four inches long, through the outer third of the right rectus, beginning a short distance from the costal margin. The muscle was separated by means of blunt dissection and the peritoneum opened. The gall-bladder was found enlarged and full of calculi, one of which could be felt in the upper part of the cystic duct ; over the fundus of the gall-bladder were numerous adhesions which bound it to the hepatic flexure and beginning of the transverse colon. The liver was markedly hob-nailed. Over the gall-bladder was a tongue of cirrhotic liver. The abdomen was carefully explored, but no other abnormality found.

After elevating the gall-bladder the adhesions were separated between forceps.

An incision was now made, beginning near the fundus of the gall-bladder on the right side, and about half an inch from its attachment to the liver through the serous and muscular coats, extending the whole length of the gall-bladder down to the commencement of the cystic duct. By means of blunt dissection between the mucous and muscular coats, posteriorly, the gall-bladder was lifted out of its bed until a corresponding point on the left side of the gall-bladder was reached, when a similar incision was carried down through the two outer coats on the left side ; in this way the entire gall-bladder was separated from the liver, with the exception of those parts of its two outer coats, which were left attached to that organ, forming,

as it were, a flap on either side of its liver attachment. The cystic duct was now traced down until a point about half an inch away from the hepatic duct was reached. The outer fibrous coat of this duct was separated from the mucous coat so as to form a cuff, which was shoved back so as to allow the mucous coat to be ligated close to its junction with the hepatic duct and divided just externally to the ligature, thus allowing the gall-bladder to be removed. The little stump was now wiped off, the cuff drawn back and closed with fine silk, in a manner similar to an appendix operation.

After carefully ligating all small bleeding points, a continuous suture of catgut was placed, beginning at the stump of the duct and running up, bringing the aforementioned flaps together, thus leaving a complete serous covering over the liver. It was not found necessary to tie any bleeding points in these flaps.

As the adhesions which had been separated from the gall-bladder formed a broad abraded area, a continuous suture of silk was run through them, bringing the peritoneal coats together, thus leaving a much nicer condition of the parts.

The abdomen was now closed by means of a continuous silk suture, which extended through the peritoneum and posterior sheath of the rectus. The anterior sheath of the rectus was now stitched with another continuous suture of silk, this approximated the separated muscular bundles of the rectus, and as no sutures were passed through them caused very little injury to the muscle. The usual subcuticular wire suture was now inserted, dressing applied and patient returned to bed.

The operation occupied three-quarters of an hour and the patient was in a very good condition when removed to her bed. Her convalescence was uninterrupted.

Wire suture removed on the eighth day and everything found perfectly healed. She was allowed to sit up in bed on the tenth day, get up on the fourteenth day, and returned home on the eighteenth day.

The lumen of the gall-bladder was not opened, and there was no chance of infection.

The second patient was seen with my friend, Dr. J. T. Rogers, of this city, on April 6th, 1902. The history is as follows:

Mrs. C., aged 46, is a medium-sized, well-nourished woman, with good family history. She has had seven children, and four miscarriages. Youngest child eight years old. In 1875 she had an attack of inflammation of the bowels. In 1885, following confinement, she had septicemia. When pregnant, she has always felt more or less pain in lower and right side of the abdomen. In November, 1900, she was confined to her

bed for a few days with a pain in her right side over the liver, sickness of the stomach, vomiting and slight fever. During the last eighteen months she has had slight returns of this pain, which seemed to shoot through to the right shoulder blade, and was accompanied usually by sickness of the stomach, distention of the abdomen and vomiting. She always seemed relieved after vomiting. Two days ago she was taken with a severe pain in the right side, vomiting, chills and fever, and anorexia. Dr. Rogers was summoned. She had a temperature of 101, suffering a great deal of pain, which required an opiate to relieve. The following day a well-marked tumor could be made out beneath the right rectus.

Note, April 6th: There is a tumor at the outer side of the right rectus, just below the edge of the liver. It is about two and a half inches in width and three inches in length, parallel with the rectus, and extends downwards to the level of the umbilicus. It has a smooth outline and can be separated from the kidney, which is felt behind. It is tender on pressure. The pain shoots through to the back beneath the right shoulder blade and is accompanied by sickness of the stomach.

The patient was removed to the city hospital and operated on immediately.

The abdomen was opened through the right rectus in the usual way. A large distended gall-bladder was seen, which contained a large stone. Imbedded in the upper part of the cystic duct there was another large stone the size of a hickory nut. Owing to the distention of the gall-bladder it was found very difficult to manipulate this organ in order to enucleate it, consequently it was grasped with two clamp forceps, surrounded with gauze packing and aspirated. About six ounces of thick mucus, containing a large amount of pus cells, was removed, the puncture wound wiped with gauze, then touched with pure carbolic acid, and closed with clamp forceps. This partial emptying of the gall-bladder facilitated the subsequent steps of the operation very much indeed. It was now treated in the same manner as in the preceding case. The muscular coat was very much infiltrated with serum, which gave it a very light yellow appearance, and the contrast between the muscular and mucous coats was very great, as the latter was a deep reddish brown color. Two little branches of the cystic artery were ligated. After closing the stump and stitching the flaps together, the caput coli was drawn up into the wound, discharging a very much thickened appendix with a bulbous extremity at the end of which was a strong round adhesion attaching it to the small bowel. The adhesion was divided, appendix removed, and stump invaginated, the abdomen closed in the usual way.

The operation occupied about an hour. Convalescence was uninterrupted. Patient was dressed on the tenth day, and allowed out of bed on the fourteenth day, returned home three days later.

Both of these patients did remarkably well, and the advantages of this operation over the old method are so great that one cannot help feeling that it is a great step forward in the surgery of the gall-bladder.

THREE CASES OF PUERPERAL SEPTICAEMIA, TREATED WITH ANTISTREPTOCOCCUS SERUM.

By K. C. McILWRAITH, M.B. TOR., F.O.S. ED.

Case 1.—Mrs. R., aged 38. Abortion about the fourth month. Admitted to Toronto General Hospital June 25th, 1901, under the care of Dr. Ross. Irregular fever, as shown by the



chart. I first saw the patient about the 5th of July. There was then some dullness and prolonged expiration at about the level of the third rib anteriorly in the left lung. Patient placed on strychnine hypodermically and whiskey and

quinine by the mouth. Serum was given on July 7th at 12.30 p.m., 10 c.c., and at 11 p.m. 10 c.c. Next morning she looked and felt very much better. Two more doses of 10 c.c. each were given on the 8th, and the patient continued to feel very much better. The supply of serum gave out at this time. On the 15th two more doses of 10 c.c. were given, and as before the patient felt and looked much better for a time after it.

This woman was strong and a good patient, aiding in every way in the fight that was being made for her life. She hung betwixt life and death, having occasional rigors and vomiting spells until the 4th of August, when she coughed up a considerable quantity of greenish, very offensive pus. The discharge of this nature continued for two or three days, and she gradually recovered, being discharged well on the 10th of September. I think that in this case the serum was not given soon enough or in large enough doses, and not kept up long enough.

Case 2.—Mrs. W., aged 26, primipara. Admitted to Toronto General Hospital January 28th, under the care of Dr. A. H. Wright. Temperature 103, pulse 96; 10th day of the puerperium. Physician reported that she began to have fever on the third day of the puerperium, and that he had curetted the uterus twice. R Calomel in divided doses, followed by magnesium sulph.; whiskey $\frac{3}{4}$ i. every 4 hours. Child taken from breast.

January 29th.—Bowels very freely moved in the morning. By noon temperature, $99\frac{1}{2}$, pulse 88. Patient did not look or feel badly. Uterus distinctly subinvolved. Temperature at 8 p.m., 105, pulse 80, respiration 20. R Quin. sulph. grs. i., q. 4 hours. Liq. strych. mms. iii., hypo. q. 6 hours.

January 30th.—Temperature 100, pulse 90, respiration 22 in the morning; temperature $105\frac{3}{4}$, pulse and respiration not recorded at night.

January 31st.—Temperature 100, pulse 80, respiration 20 in the morning. The uterus was explored under chloroform in the afternoon. The walls were found to be smooth, and no membranes, clots, or portions of placenta present. There was a quantity of yellowish discharge in the uterus, some of which was removed in a sterilized pipette for bacteriological examination. The uterus was washed out with a creolin solution, and a quantity of iodoform gauze introduced. At night she had a chill, temperature 103, pulse 90, respiration 24. The discharge showed abundant streptococci in the smear.

February 1st.—Morning temperature $102\frac{3}{4}$, pulse 92, respiration 20. At 4 p.m. the temperature was $104\frac{3}{4}$, pulse 116, respiration 24. After consultation with Dr. Wright 20 c.c. antistreptococcus serum were given by hypodermic injection between the shoulder blades. One hour later the temperature

February 3rd.—Temperature remained at 98, pulse 88 all morning, going up to 99 $\frac{2}{3}$, pulse 96 at 6 p.m.

February 4th, 6.30 a.m.—Temperature 104, pulse 110, respiration 24, falling by noon to 101 $\frac{1}{3}$, 108 and 24 respectively. Serum 20 c.c. given. Temperature at 6 p.m. 98 $\frac{1}{3}$. Patient slept well all night.

February 5th, 4 a.m.—Temperature 106, pulse 136, respiration 24. Temperature fell steadily all day until by midnight it was 98. Pulse 86 and respiration 24.

February 6th to 13th.—During this period (8 days) the temperature varied between 96 and 98. The patient looked well, slept well, felt well and ate well. On the afternoon of the 13th the patient was allowed to sit up for a few minutes. Had a severe chill. By 7 p.m. temperature 106, pulse 148, respiration 32. Serum 10 c.c. given.

February 14th.—Temperature falling steadily all day. Patient felt well and wondered why she was kept in bed.

February 15th, 7 a.m.—Temperature 98, pulse 84, respiration 22. During the rest of the patient's stay in the Hospital her temperature varied between 97 and 98 $\frac{1}{3}$. She was allowed up on the 24th, and left the Hospital on the 28th, having been 14 days without fever. The yellowish discharge had gradually ceased, and the uterus could no longer be felt per abdomen. On March 10th her husband told me that four days after her return home she had "felt chilly," but that since then she had been getting stronger every day, and was able to attend to her duties. During the whole of this illness the patient did not look as ill as her temperature seemed to indicate. I attribute this, in part at least, to the stimulating treatment given. I have noticed this fact before under similar circumstances. The fact that the guinea-pig did not die from the injection of the material obtained from the uterus is not unusual. Animals are not specially susceptible to micrococci taken from the human subject. The sense of well-being after serum injections was very well marked in these two cases. The clinical condition, namely, the continued fever of septic type, and the smooth-walled, empty uterus was itself sufficient to establish a diagnosis of septicæmia, though the bacteriological finding was strongly confirmatory. The chill which followed the exploration of the uterus is the rule in such cases.

Case 3.—Mrs. E.—Admitted February 22nd, 10.45 p.m. Temperature 100, pulse 120, respiration 34. Brownish, offensive discharge from uterus.

February 24th.—Uterus explored under chloroform, found empty and smooth-walled. The only organism recovered from the discharge was a long bacillus.

February 25.—Feeling better. Temperature 99 this morning, 104 at night.

A CASE OF VOMITING OF PREGNANCY.

By EVERETT S. HICKS, PORT DOVER.

The case about to be reported is no doubt an exact counterpart of many another case, but it may be of interest from the fact that the new treatment, viz., the use of saline enemata, credited to Condomin in the April issue of the PRACTITIONER, had been thoroughly tried for ten days prior to my having read the report of his cases. It was not successful in this instance.

Mrs. A. B., aged 22 years, came to my office about middle of March complaining of continuous nausea, soreness of the epigastrium, and of a lump moving from the stomach to the throat. Patient was of slight build, in appearance not at all rugged. Family history good. She has had previous good health except for severe attacks of dysmenorrhea. Questioning elicited the fact that the last menstruation had been missed some two weeks before. A diagnosis of probable pregnancy was made. Directions as to diet and the general management were given and a mixture of bismuth with an alkaline stomachic prescribed.

March 31st. Saw the patient at her home. She tells me she has been unable to retain any food for a week and a half. Examination reveals a poorly developed cervix, a pin-hole os and an anteфлекed uterus. Absolute rest in bed with rectal feeding and saline enemata was continued for ten days. Patient was free from excessive vomiting the first three days but nausea was continuous. She became steadily worse. All the medicines catalogued were tried in succession. If any practitioner has a fond hobby in any one drug I would be pleased to hear of it and tell him of its effect in this case. In conjunction with medicinal measures, blisters were applied to the epigastrium and on the neck, the cervix was thoroughly dilated, cocaine and carbolic acid applied and the cervix bled by multiple puncture. I advised consultation towards the end of April with a view of producing an abortion. My consultant advised waiting and we tried other medicines without effect. On Sunday, April 27th, we agreed to produce abortion. Patient was at that time very thin, irritable, despondent and very weak, temperature 98, pulse 96, weak and compressible. After rendering everything aseptic a sound was passed well up to the fundus and moved around freely. Some flowing followed, Monday, April 28th—No pains; sound passed again. Tuesday, 29th—No pains but a little flowing. Patient was given strychnine hypodermically and saline enemata with foods, temperature normal, pulse 110. Dull curette was used with the idea of

separating the membranes from the uterine wall. Wednesday, April 30th—No pains. Common No. 10 male elastic catheter inserted and pushed up until about an inch only projected from the cervix. It was left thus in the uterus. May 1st—No pains. Flowing more profusely in the afternoon. May 2nd, 2 p.m.—Catheter still in uterus, pains coming on feebly, pulse 120 and thready, patient pale, face pinched, ears cold. Strychnine was given freely and saline enemata. A little chloroform at midnight enabled me to scoop out ovum and membranes entire with the finger. Ovum obtained was about nine weeks old. May 3rd—Patient weak, pulse 110, but able to retain nourishment. She has since been making a good recovery with no complications.

It would be well to note:

1. The early onset of the severe vomiting when about two weeks pregnant.
2. The length of time (six weeks) without nourishment by the stomach.
3. The advisability of early rectal feeding.
4. The uselessness of medicines and all non-operative measures in this case.
5. The difficulty in producing abortion.
6. The immediate improvement when the cause was removed.

From a study of this case one feels that no one method of treatment is reliable. Saline enemata are useful but not curative. Each case must be a law to itself, but it would seem foolish with our patient extremely weak to wait day after day. If we fail then we almost certainly will lose the case. If we must make mistakes let them rather be a little early than a little late. Common horse sense tells us what to do, namely, to remove the cause and our doing so will in these severe cases help to keep down our percentage of failures.

COMPLICATED PREGNANCY REQUIRING SURGICAL INTERFERENCE.*

BY T. K. HOLMES, M.D., CHATHAM.

Among the many perplexing cases that come under the care of the general practitioner, few appeal to his skill and sympathy more strongly than cases of pregnancy complicated by pelvic or by abdominal conditions requiring surgical interference. The natural desire for children, and the dread all good women feel of any operation that jeopardizes the life of an unborn child, make them reluctant to submit to what is often the only chance of life for either. Pregnant women often bear surgical operations well. Recently, several cases have come under my care that have encouraged me to deal with these complications in a radical way, and with well founded hopes of success, such as could not have been entertained a few years ago.

For convenience and clearness, it will be better to divide these cases into two classes: Those in which there is a possibility of saving both mother and child, and: Those in which the nature of the complication offers no hope of saving the latter.

A woman, about thirty years of age, had been ill for a couple of weeks but had not consulted a medical man. There had been a chill at first, and fever had been thought to be present more or less every day thereafter until the final attack (on the twelfth day after the chill) that nearly ended her life: during these days also, there had been some pain and tenderness in the right iliac fossa.

She was four months pregnant. On the morning of the twelfth day of illness she was attempting to sweep, when a sudden pain in the abdomen caused her to sink upon the floor. She was lifted to a bed and Doctors Wright and Millen, of Wheatley, sent for. They found her in great pain and suffering from shock. There was a decided fulness on the right side of the uterus, perceptible on the outside of the abdomen; but it gradually grew less and, in a few hours, disappeared altogether in the general fulness that became apparent over the whole abdomen. The physicians quite reasonably decided that it was a ruptured tubal pregnancy, and Doctor Wright telegraphed me to operate.

I saw her about 4 p.m., and on opening the abdomen in the median line was surprised to see a copious discharge of thin, watery pus, and on searching for its origin located it at the appendix, which was discovered to be bent sharply on itself

* This has also appeared in the *Detroit Medical Journal*.

and in an advanced stage of disease. It was at once removed, and subsequently the entire abdominal cavity flushed until the water returned quite clear; a drainage tube was then inserted at the lower angle of the wound and the incision closed. The drainage tube was removed by Doctor Wright after forty-eight hours, and recovery occurred without any unusual symptom. The patient was eventually delivered of a healthy child, at full term.

The second patient was referred to me by Doctor Dewar, of Windsor. She had not been wholly well for several months, manifesting, every day, a temperature a degree or two above normal and a pulse, generally, of from 90 to 110. She was nearly four months pregnant when I first saw her, and there was a mass at the right side of the uterus and somewhat behind it, not very large, but tender and immovable, and in a position to obstruct the passage of a child at full term. The history of the case led me to think it was an abscess with very thick wall, and I advised that it either be removed by immediate operation or an abortion produced and the operation performed later. She was subsequently seen by one of the most skilful surgeons in Detroit, whose opinion and advice coincided with my own. She was placed in Harper Hospital (Detroit), by her regular attendant, and the request made that I should operate, which I did, having the advantage of the advice and assistance of Doctors Dewar and Donald Maclean.

The mass proved to be a solid fibroid growth, springing from the right side of the uterus and a little posterior to it, and very near the junction of the cervix and body. It was enucleated by splitting the capsule, and the cavity closed by continuous silk sutures, placed deeply so as to arrest all hemorrhage, and without drainage. There was a good deal of vomiting for two or three days, but she made a good recovery and was delivered at full term without any unusual occurrence.

The third woman had borne two children, and came to consult me on account of a swelling on the right side of the abdomen as large as a cocoanut. She was four months advanced in a third pregnancy. The tumor was smooth and movable, but its presence gave her a great deal of pain.

Presuming, because of its rapid growth, that it might become dangerous before or during confinement, I advised removal; and having gained her consent, opened the abdomen and succeeded without difficulty in getting it away. It proved to be an ovarian cyst with a long pedicle. Recovery was rapid and she carried the child to full term and was delivered without any unusual occurrence.

A patient, forty years old, had been married only about eight months when she was referred to me by Doctor McKenzie, of

Kingsville. Examination revealed an irregular uterine fibroid, the uterus filling the pelvis and extending above the umbilicus. There were symptoms of pregnancy, but the most urgent distress arose from pressure symptoms.

On opening the abdomen great difficulty was experienced in getting the mass out of the pelvic cavity sufficiently to secure the uterine vessels; and it was only by employing pressure from below upwards, through the vagina, traction being made at the same time from above by means of volsellum forceps, that this was accomplished. After complete hysteromyomectomy had been performed, examination of the uterus revealed a four months' fetus.

There was considerable shock for a few hours, but she rallied well under the influence of saline transfusion and made an excellent recovery.

The next case was referred to me by Doctor Davis, of Kent Bridge. She was a young woman of healthy appearance, married only a few months. After missing one menstrual period by about fourteen days, she was attacked with pain and flowing, and soon after there was discharged what was thought to be decidua membrane. These symptoms continued for a couple of weeks, when there appeared, in addition, a slight rise of temperature and great nausea.

Examination revealed a solid mass behind and to the right of the uterus; and the cervix was pushed to the left and upwards behind the pubes. A diagnosis of extra-uterine pregnancy was made, and she readily consented to an operation, which was performed as soon as complete preparation could be made.

On opening the abdomen there were found, in the walls of the uterus, seven fibroids, varying in size from a walnut to a large orange, when it was at once decided to remove the whole organ.

On dividing the cervix a portion of soft bloody tissue was caught in a piece of gauze and the wound thus protected from infection. After removal the uterine canal was split open and the fetal mass found partly in the right tube, and partly interstitial, occupying the adjacent wall of the uterine body. Recovery was satisfactory in every way.

The sixth patient was referred to me by Doctor Hanks, of Blenheim. She was thirty-four years of age, had been married about a year, and was thought to be pregnant about four months. She first consulted Doctor Hanks on account of sudden severe pain in the pelvic region, closely resembling the pain and faintness so commonly observed in partial rupture of the sac in tubal gestation. Doctor Hanks, on examination, discovered a tumor in the right iliac fossa and decided that the

indications all pointed to extra-uterine pregnancy, an opinion I corroborated. On operation the tumor proved to be of a rather soft nature, but was enucleated without difficulty, leaving the pregnant uterus. It was impossible, in closing the wound in the uterus, to control all oozing, as the tissue was so vascular that at every puncture of the needle it bled freely. After much delay, and when the hemorrhage seemed to have stopped, I closed the abdomen without drainage, and for a month all went well. At the end of that time labor pains came on and she miscarried. Again all went well for nearly another month, when she was suddenly seized with most violent abdominal pains, and vomiting became persistent, accompanied by extreme tympanitis. These symptoms developed so severely and suddenly that it was decided to reopen the abdomen to ascertain the cause thereof, and if possible afford relief. As soon as the anesthetic was begun, her condition became so alarming that it could not be continued, and the operation was abandoned. She sank rapidly and died four hours after. Permission for an autopsy could not be obtained.

All surgeons who have had experience in the performance of myomectomy know what great care is necessary in closing the wound in the uterine wall so as to completely arrest bleeding. In a pregnant uterus the difficulty is greatly increased, and especially in a case like the last, where every prick of the needle causes persistent hemorrhage. It is impossible to determine with certainty the cause that induced fatality, but it may have been from slight hemorrhage which afforded a medium for bacterial infection.

Unless a fibroid occupy a position that would render delivery at term impossible, I believe it is better not to interfere until after the puerperium.

Selected Articles.

A CASE OF RECURRING OR RELAPSING VARIOLA.

By PROFESSORS F. MATONI AND A. SOLARO,
Of the Cotugno Hospital, of Naples.

As in other infectious diseases, so also in variola, the question of relapses has often engaged the attention of medical men. Although, as Curschmann* properly observes, these are to be accepted with caution; yet they are not to be considered as impossible, having been verified by the best authorities, who have also quoted authentic cases. We, ourselves, in the late epidemic, which is now drawing to a close, have seen some of these in the Cotugno Hospital. Cases of relapse after a very short interval are not very exceptional, as one of us (Professor Matoni) when examining the records of cases of variola in this hospital for a statistical work now in course of preparation, found many cases which might be added to that related by Montefusco† (1886), and one especially, which we shall now report, as it is brief and convincing, and moreover occurring in a child.

The patient was Irolla S., of Naples, seven years old, vaccinated in early infancy with positive result, but with one incision only, showing on the right arm a small vaccination scar. He was admitted to the hospital for the first time on June 30th, 1901. At the time of admission he showed macules and papules scattered over the body and on the face, and had been ill four days. Professor Romanelli made a diagnosis of varioloid. The temperature was 37.5. The first of July the temperature was 37.2 a.m., 37.5 p.m. A few vesicles could now be seen forming. On the 2nd July the temperature rose in the evening to 37.8, and the vesicles already began to dry up. On the 3rd July, crusts began to form without further rise of temperature. These began to fall on the 4th July. On the 5th the boy was declared convalescent, and on the 9th he left the hospital. About seven days later, on the 16th July, the child again entered the hospital with a diagnosis of discrete variola at the beginning of the pustular period. The temperature was 37.5, and rose on the evening of the 17th to 38.3, when the pustules were more fully developed. From the 17th to the 20th the temperature did not fall below 38. On the 20th the pustules on the face began to dry, but those on the body, which were

* Curschmann. Variola in Ziemssen "Pathology and Therapy," II. P., p. 267.

† Montefusco. A case of relapsing variola after a very short interval (1886).

very numerous, remained unchanged until the 24th, when they, too, began to dry. On the 25th the child was convalescent and left the hospital on the 15th August. The diagnosis of variola was recorded on the hospital journal by the same director, Professor Romanelli. The treatment in the first attack was only the local use of a liniment, and in the second a phenic lemonade with the local application of borie vaseline.

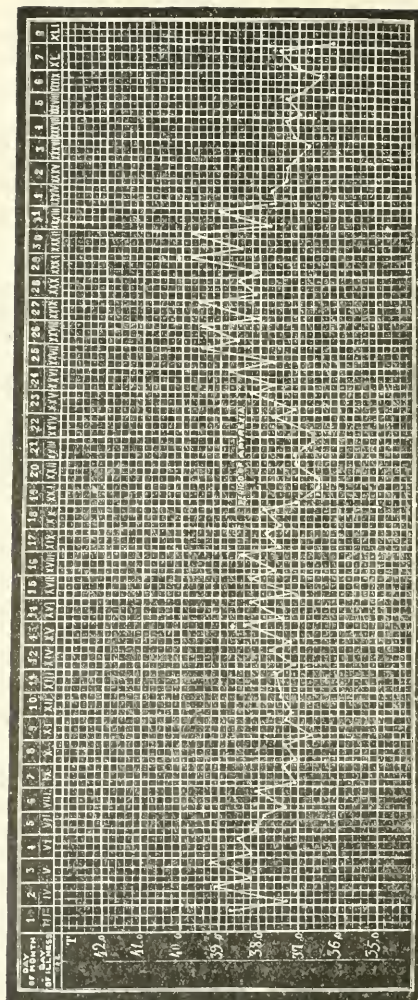
This case resembles that of Montefusco in many points. The age of the patient (Montefusco's was 14 years old, ours 7); the great susceptibility to infection in both, both having been successfully vaccinated in infancy; and finally, the recovery—differing only in the fact that in our case the second attack was worse than the first. This case, like his, is very convincing because it occurred in an hospital for contagious diseases, and was treated both times by the same doctors, thus eliminating the objection usually made in cases of recurrence which are not seen by the same doctor. It is difficult to be mistaken in such cases as these, treated in hospitals for contagious diseases by doctors who see the disease in all its forms and stages, and where are available the very best means of investigation for correcting a diagnosis. They therefore prove the possibility of a recurrence of variola after a short interval. However it was not with such recurrences that we wish to deal.

The observation which we are about to make has a different value and importance, since, as far as we know, it has not been treated of in literature, but may constitute a special form of variola which it is well to recognize and record. In truth, the case studied by us, presents a course so peculiar that it is to be distinguished from every kind of anomaly which is described in the books.

In this case, it is not a question of those forms of discrete or confluent variola in which the eruption, instead of being completed in 24 or 36 hours, as is the rule, takes place very gradually, so that while on one part the macule is becoming a papule, on another a new macule is just appearing; and thus the same patient may present on his own body all the different stages of the disease co-existent. Such is not our case.

A. E., 45 years of age, was admitted to the hospital on the 1st October, 1901. She had been vaccinated and had four separate scars, but had never been re-vaccinated. She was of delicate constitution. She had had no serious sickness, and up to the present time had enjoyed perfect health. This illness began three days previously with headache and fever. The second day an eruption appeared on her face. On admission there were scattered papules on the face and on other parts of the body, especially on the legs, but on the abdomen many were confluent. The tongue was coated; evacuations normal;

MATONI E SOLARO.—A CASE OF RECURRING OR RELAPSING VARIOLA.



* Beginning of the tertiary fever of variola.

temperature in the axilla 38.9. She left the hospital, fully recovered, on the 11th November.

During her stay in the hospital she had two febrile periods, the first from October 1st to October 18th; the second from October 22nd to November 1st. Between these was a period of apyrexia, of three days' duration.

In the first febrile period her temperature reached its highest point, 39.2, when the papules were becoming vesicles and pustules were forming, but there was no defervescence between the end of the eruption and pustulation, that is to say, there was absent that afebrile period which generally precedes the secondary or suppurative fever. Having reached its highest point, the temperature fell, but never reached normal in the evenings. Another rise of temperature occurred on the 13th of October, coincident with the formation of crusts over the whole body—constituting the tertiary or drying fever of Leo† and Wunderlich,§ which is not mentioned, however, in recent authors, but which we have so often seen in our cases that it can be definitely related to this important stage of the disease, when the crusts are forming.

After this rise the temperature became normal for the first time on October 19th, when there was desquamation and a general improvement.

At this time, when the disease seemed to be at an end, and when the patient was apparently convalescing, the urine was examined. We then found that the albumin, which on the 8th day was diminished, was increased again, and with this, too, the diazo-reaction which is very frequent in variola. The next day the scene changed. The patient suddenly grew worse; answered questions with difficulty; the temperature rose and a new exanthem appeared, progressing from the initial rash to pustulation, then drying up and desquamating. With pustulation and drying up the temperature rose, and at the same time the general condition changed. Thus we had a new attack of the disease, more severe than the first.

We had met with nothing like this in other patients, and after having assured ourselves that we had made no mistake in the method of invasion, in the appearance, the form and the course of the exanthem, in the temperature, the general condition and the urine, which were all characteristic of variola, we came to the conclusion that we were treating a new attack, or rather a relapse of the disease; and not finding any example in literature we decided to publish it.

Before, however, handing it over to the judgment of others, we wish to refer to two facts which might be open to objection.

† Leo. Arch. d. Heilk (1864).

§ Wunderlich. Medical Thermometry. Naples, 1873.

The first is, that the fall of temperature, which we regarded as a period of apyrexia (October 19th to 21st), was due to the salipyrine which was administered on October 17th and 18th. In reply to this, the dose given (one gramme on 17th and one-half gramme on 18th) was too small to cause the fall of temperature, and further, the low temperature continued after the suspension of the medicine. Moreover, the remedy was used to combat a prodrome of the new attack, namely, the headache. The second objection is that, instead of being a relapse or recurrence, it might be an attack of erysipelas. It is quite true that variola sometimes resembles erysipelas (confluent variola of the face), and erysipelas sometimes resembles variola (swelling of the face and especially of the eyelids), but it is not difficult for any one who has had experience to distinguish them by the clinical manifestations alone. In variola there are never wanting in the uniformity of the redness and swelling, raised red points which are never to be seen in erysipelas. If pustules appear in the latter, they appear later than in variola, in which they are contemporaneous, or nearly so, with the initial exanthem. In erysipelas the swelling is accompanied by intense pain, which is absent in variola, or if present, it is never in inverse ratio to the swelling. The rash or erythema of variola never presents that sharply defined margin which, even if limited, is so characteristic of erysipelas, being present if there be only a small spot of erysipelas. The shedding of the skin in large flakes is more often seen in variola. In our case the swelling of the face and hands took place two or three days after the initial rash, and after papules and vesicles had been formed for more than thirty-six hours on the affected parts, this being the usual course in variola when the confluent vesicles begin to suppurate; whereas in erysipelas the swelling takes place almost at the same time as the erythema. The temperature in our case was not that of a case of erysipelas.

Finally, to confirm still further what we have said, we wish to add that in the Cotugno Hospital, both for some months before and during the entire illness of our patient, there was not a single case of erysipelas, while, for special reasons, it was not possible at that time to search for the streptococcus of Fehleisen with the corresponding tests of culture and inoculation.—*Translated from Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

THE MISSION OF SOCIETIES FOR THE PREVENTION OF CONSUMPTION IN THE ANTI- TUBERCULOSIS CRUSADE.*

BY S. A. KNOPF, M.D., NEW YORK.

For the modern methods of curing tuberculosis through outdoor life, proper hygiene, and good food we are primarily indebted to the English people. It may not be generally known that even the earliest efforts in sanatorium treatment were inaugurated by an Englishman in the person of Dr. George Bodington, of Sutton Goldfield, Warwickshire, England; and as a veritable pioneer in aerotherapy we must not forget that princess among nurses who helped to cure the English physician, Bennett, of consumption, the great and good Florence Nightingale. Brehmer and Dettweiler, of Germany, were the pioneers of the sanatorium treatment of consumption as it is now almost universally practised, and as American pioneers of modern phthisiotherapy we must not fail to mention our distinguished colleagues, Dr. E. L. Trudeau, of the Adirondack Cottage Sanatorium, and Dr. Vincent Y. Bowditch, of Boston.

To summarize our present knowledge and to state the basis on which our societies for the prevention of tuberculosis should work, we might say we now know that tuberculosis, especially in its pulmonary form, is an infectious, communicable, preventable, and in many instances absolutely curable disease; furthermore, that it can be cured in nearly all climates where the extremes of temperature are not too pronounced and where the air is relatively pure and fresh. In other words, it is not always necessary for a consumptive patient to travel long distances and seek special climatic conditions, but in most instances he has a chance of getting well even in his home climate.

It seems to me essential that those of us who labor not only with tuberculous patients but also with their friends and relatives, and a large portion of the community, whose sympathy we desire to enlist in our cause, should know the true status of a consumptive. Whether we work under the name of a society for the prevention of tuberculosis, or sanatorium association, or an anti-tuberculosis movement of any kind, we must never, never be considered as an anti-consumptives' society. The consumptive must know that every member of an anti-tuberculosis society is his friend, that we labor for

*Abstract of an address delivered by invitation before the Canadian Association for the Prevention of Tuberculosis, at its annual meeting, April 1, 1902, at Ottawa, at which His Excellency, the Governor-General, the Earl of Minto, presided.

him and not against him; that we try to lessen his burdens, and that we are the last to make him feel as if he were an outcast from society. To do the work in this spirit will be the first and most essential duty in the mission which a society for the prevention of tuberculosis should fulfil.

I would suggest that every pamphlet which may be issued by a society for the prevention of tuberculosis, every lecture which may be printed for the cause, every newspaper report which is sent forth, should include a declaration which should read about as follows:

"Consumption is a preventable and curable disease. The sooner the patient puts himself under the care of a competent physician the greater are his chances of recovery. The well-trained physician is the most competent person to guide the patient in the means to prevent reinfection of himself or the infection of his fellow men. Consumption, or pulmonary tuberculosis, is not cured, and never has been cured, by quacks, patent medicines, or any other secret remedies. The most modern and most successful methods of treating consumption consist solely and exclusively in the scientific and judicious use of fresh air, sunshine, water, abundant and good food, and the help of certain medicinal substances when the just-mentioned hygienic and dietetic means do not suffice in themselves to combat the disease.

"The thorough and constant supervision of the pulmonary invalid, the immediate intervention when new symptoms manifest themselves or old ones become aggravated or do not disappear rapidly enough, the prescription of proper food and drink, can only be had at the hands of the thoroughly trained physician."

With educating our consumptive friend, those living with him, and the public at large as to the methods of prevention and means of cure the mission of a society for the prevention of tuberculosis by no means ceases. Our work has only commenced. We must now solve the question which I have asked above: What can we do to better the condition of the consumptive poor and those of moderate means?

The well-to-do patient can easily be advised to better his unhygienic environments; with the poor it will be far more difficult. When our work brings us into the presence of a consumptive wage-earner, living in a tenement house in a few badly ventilated and badly lighted rooms, with the earnings of better days gone, with scanty food and scanty raiment, we wish we could do, not one thing, but many things. First of all, we should wish we could take this poor sufferer to a sanatorium where he would have the best chance of cure and where the possibility of reinfecting himself and infecting his wife and

children would be removed. We should then wish to examine all the members of the family, to find out if there were any who had already contracted the disease, and, if so, take them, too, in the earliest possible stage to a sanatorium for complete recovery.

What a vast amount of work there is to do! What a grand mission a society for the prevention of consumption has to fulfil! Where shall we find shelter for the consumptive poor, who not infrequently, owing to an unjustified and cruel phthisophobia (exaggerated fear of the presence of consumptives), are little welcome anywhere? The sanatorium must be to the poor consumptive not only a place of cure, but also a haven of rest. There are not enough sanatorium and hospital facilities for the consumptive poor, either in your country or in mine. Thousands of consumptives are allowed to die annually, not because their disease could not be cured, but for the simple reason that there is no place in which to cure them.

The beneficent influence of sanatorium education is so true that it has been even demonstrated that in the villages of Goerbersdorf and Falkenstein, where five of the most important and flourishing German sanatoria are situated, the mortality from tuberculosis among the villagers has actually been decreased by one-third from what it was before the establishment of these institutions. The villagers voluntarily followed the hygienic regulations, which are obligatory for sanatorium inmates. This shows how wrong our phthisiophobic friends are when they object to the establishment of a well-conducted sanatorium for fear of contagion to the neighborhood.

If a community will erect a sanatorium for its indigent consumptives, this institution will prove to be a hygienic educator to all the inhabitants. The patient returning home, whether cured or only improved, will have become a practising expert in the prevention of tuberculosis.

Let me, lastly, demonstrate to you that the communities which you will seek to interest in the establishment of sanatoria will gain financially by placing their consumptive poor in time in such an institution. It is estimated that there are in New York State about 50,000 tuberculous invalids. Of these, probably one-fifth belong to that class of patients which sooner or later become a burden to the community. These 10,000 consumptives, absolutely poor, will sooner or later have to be taken care of by the public general hospitals. While they may not stay in one hospital for twelve months continually, they will certainly occupy a bed in one of the public institutions for that length of time before they die. According

to the last annual announcement of the public charity hospitals of New York, the average cost per patient per day in the general hospitals was \$1.16. Thus the cost to the commonwealth will be \$4,234,000 per year for caring for the 10,000 consumptives.

What would be the expense if they were taken care of in a sanatorium? Experience in this country and abroad has demonstrated that the maintenance of incipient cases in well-conducted sanatoria can well be carried out for one dollar per day. If these 10,000 were to be sent to a sanatorium in time, at least 6,000 of them would be lastingly cured after a maximum sojourn of 250 days, at an average expense of \$250 per capita. Thus, for \$1,500,000, 6,000 individuals would be made again bread winners and useful citizens. If the remaining 4,000 invalids were kept in the sanatorium one year before they died, it would cost \$1,460,000. Thus, taking away from the tenement districts 10,000 consumptives, curing more than half of them and caring for the other half, and destroying 10,000 foci of infection will cost \$2,960,000. If we do not take care of them in the earlier stages of their disease, they will probably all die, since this 10,000 represents the absolutely poor who now live under the most unhygienic conditions: but before dying they will have cost the community \$4,234,000.

Before concluding, let me beseech you not to rest here with your labors. After you have removed multiple centres of infection from tuberculosis, after having erected sanatoria for tuberculous adults and children, there will still remain, if not the most important, at least equally important factors of predisposition to tuberculosis which we shall find in the badly housed, in the badly clothed, in the underfed, and in the overworked individual. A society for the prevention of consumption must make it one of its duties to work for the better housing of the poor. Let it be known to employer and employee, to every landlord and tenant, to rich and to poor, but particularly let it be known to the dwellers in the crowded tenement districts, that it is as dangerous to breathe foul, vitiated air as it is to drink foul and infected water. Sweatshop work and unsanitary factories and workshops should not be tolerated in this enlightened century. The eight-hour law and the prohibition of child labor should be enforced everywhere if the underlying factors of the propagation of tuberculosis are to be removed.

All children at school should have more outdoor instruction and more physical culture than they have now. It is wrong, nay, it is even a crime, to push the intellectual culture of children to the detriment of their physical growth and development. Children in our public schools should be

taught the value of sensible dress and be equipped with the knowledge of elementary hygiene.

All such knowledge you should disseminate whenever and wherever you can. Yet, important as this dissemination of knowledge and the propaganda of sanatoria are, there still remains some work which you are called upon to do if you want to fulfil the whole mission of a society for the prevention of consumption in the antituberculosis crusade. You will have to appeal to the great philanthropists of your country for material help. Without their aid, the municipalities and the health boards will be handicapped in your fight against this common foe, for no community has public funds enough to cope alone with the tuberculosis problem. Plead with those noble souls who have given and are giving so much for educational institutions to examine the work you are doing.

The help of your statesmen and philanthropists is needed also in another direction. You will recall that I spoke a few moments ago of the many things we should like to do for the family in the tenement home, of which several members were afflicted with tuberculosis. There is one more thing we should wish to do, of which I have not yet spoken, and that is to induce that family to leave the crowded city and move to a smaller town or village, if it is at all possible for them to do so. There they could find larger and more commodious quarters for less money. Urge them to take up agricultural pursuits or to seek at least such occupation as will demand outdoor life. I know all this will not be easy, but I see in connection with this problem a large field for true statesmanship and practical philanthropy. By making farming more profitable the statesman will stop the ever-growing tendency of emigration from village to city. By erecting and endowing institutions for healthful amusements in country districts and thus making life more attractive, the philanthropist will confer a lasting benefit upon old and young and indirectly increase the wealth, health, and happiness of a large portion of the population.—*Abstract N. Y. Med. Jour.*

Progress of Medical Science.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES W. F. ROSS, ALBERT A. MACDONALD
AND K. McILWRAITH.

Tumor Complicating Labor.

F. W. Kidd gives the history of a woman of 34, whom he saw when $4\frac{1}{2}$ months pregnant and found she had a fibroma about the size of a hen's egg springing from the posterior wall of the cervix. As it encroached very little upon the cervical canal, it was deemed inadvisable to attempt any interference until the beginning of labor; when that time arrived, it was apparent that the tumor had so increased in size as to prevent the descent of the head, or the dilation of the cervix. Accordingly the tumor was enucleated through the vagina, and three days later a living child was spontaneously delivered. The mother was able to leave the hospital in four weeks with the child doing well.—*Medical Press*.

Vaginal Hysterectomy During Pregnancy.

J. H. Carstens describes the case of a woman of 26 with an enlarged uterus about the size of four to five months' pregnancy. There was a nodule where the cervix had been, evidently the recurrence of a cancerous growth which had been removed about a year before. The uterus was absolutely closed, but the symptoms indicated a clear case of pregnancy. Prompt operation was decided upon. The patient was anesthetized, scissors were plunged in where the os should have been, the fetus delivered and vaginal hysterectomy performed. The whole operation was performed in fifteen minutes, the woman made a splendid recovery and now seems perfectly well. Carstens has collected thirty-two similar cases reported by various authors, and this table shows that operations are very successful and are indicated in all cases of uterine cancer complicated by pregnancy.—*New York Medical Journal of Obstetrics*.

A New Method of Treating the Persistent Vomiting of Pregnancy.

Condamin (*Medical Press*, March 26th, 1902) gives a new method of treatment of persistent vomiting of pregnancy. The writer says that although it cannot be said that the principle is altogether new, it is still so excellent that it should be more

widely known than it is. The author sees in such vomiting a sign of intoxication and an indication for removal of the toxic substance, whatever it may be. It is his constant endeavor to provide a substitute for the induction of the abortion that such cases generally end in. For some time past he has invariably been able to dispense with this by adopting the following line of treatment: Absolute abstinence from food for from eight to ten days: daily injections into the rectum of three to four liters of artificial serum in quantities of 300 grammes, with or without the addition of opium; in case of absolute intolerance on the part of the rectum, hypodermic infusion: after ten or twelve days' abstinence from food, gradual return to feeding by the mouth.—*The Medical Age*.

A Treatment of Abortion.

The occurrence of an accident in the hands of a general practitioner has induced Sellheim (*Münch. med. Woch.*, March 11th, 1902) to consider the treatment of abortion. The case was that of a woman aged 34, who had had five normal confinements previously. She had a hemorrhage on the fourth month of her sixth pregnancy, and on the third day a practitioner was called in. He found an offensive discharge and pyrexia (temperature 103° F.) He therefore cleared out the ovum by means of Winter's forceps. In so doing he perforated the uterine wall, and dragged a coil of intestine out at the vulva. On recognizing what had happened he plugged the vagina, and had the patient taken immediately into the hospital. Sellheim discovered at the operation, which he performed, that the uterus had been torn jaggedly, and that the lower end of the descending colon and sigmoid flexure had been detached from the mesentery and opened. The wounded intestines were resected, and the uterus and appendages removed. The patient made a good recovery. Sellheim first depicts the conditions of pregnancy and of abortion in the second, third, fourth and fifth months, and then proceeds to deal with the practical deductions. He directs his remarks to the general practitioner and not to specialists, and suggests the best methods which the former should adopt in order to incur little risk for the patient. No interference may be undertaken in ordinary cases. This rule admits of exceptions: First, in cases of severe anemia produced by a profuse hemorrhage, or by long-continued slighter bleeding; secondly, when portions of the ovum are retained; and thirdly, in cases which have become septic. The most rational method of arresting hemorrhage is to remove the ovum completely. If this has left the body of the uterus, and is retained partially or totally in the cervix or vagina, a speculum should be introduced, and if the finger cannot easily

complete the removal, ovum forceps may be used. On the other hand, when the ovum is still in the body of the uterus, one or two fingers should be introduced, and while counter-pressure is exercised by the other hand from the abdominal wall, the sac separated completely from the uterine wall. Once it has been separated, it can usually be removed by combined action of the internal finger and expression from without. The whole process can be made more easy if one seizes the anterior lip of the cervix with vulsellum forceps (double-toothed), and administers an anesthetic. Sellheim urges that the operator must not be disturbed by the hemorrhage, but must rely on the fact that this will cease on completion of the abortion. It may be that the cervix is not permeable for the finger. In this case he advises thorough plugging of the uterus, cervix and vagina with sterile iodoform gauze. The cervix must be brought into view with a Sims's speculum, the direction of its canal be ascertained by means of a uterine catheter or sound, and the size of the uterus by bimanual examination and not by the sound. The vagina is to be thoroughly irrigated, cleansed and dried, and then the strips of gauze introduced with smooth ovum forceps. All one's efforts should be directed toward keeping the ovum intact. At times it may be necessary to substitute a sound for the forceps in packing the uterus. If the ovum is not cast out after twenty-four hours, the plugging is to be removed, the passage again thoroughly disinfected, and a second packing undertaken. The next point which Sellheim raises is, whether small portions of the decidua vera, which may be left behind after the abortion should be removed. He considers that one may leave portions of decidua vera behind, but all else must be cleared out. The diagnosis that the whole contents come away can be made from inspection of the ovum. Failing this, one can be guided by the bleeding. Ordinary lochial discharge follows complete abortion, while severer loss indicates some retention. If one has had the necessity of assisting the removal of the ovum, it is a good plan, on completion of it, once more to introduce the finger and to examine the uterine cavity. In removing the remains of an incomplete abortion, if possible only the fingers should be used; but should instruments be required, these must always be employed under the guidance of the finger in the cavity of the uterus. Only when the uterus is well contracted, and when some time (if possible fourteen days) has elapsed since the actual abortion took place, is it a justifiable procedure to curette the uterus? At times the hemorrhage persists after the completed abortion. In such cases uterine irrigation with chlorine water generally suffices to control this. Failing this procedure, the uterus must be packed. In septic cases, he especially warns against the

use of the curette. Ovum forceps may be used with care. He concludes by giving a short description of the instruments to be used in carrying out the treatment of abortion.—*Epitome British Medical Journal*.

Pilocarpine in Eclampsia.

Howard Cornell reports a case in the April number of the *Alkaloidal Clinic*. He says: As the hot pack did not cause sufficient perspiration I gave hypodermically pilocarpine gr. $\frac{1}{8}$, which is theoretically the most efficient and rapidly acting remedy that we have in this class of cases. The principal contra-indication urged is that of its depressant influence. The pilocarpine induced extensive pulmonary edema, causing extreme dyspnea, cyanosis of the face and extremities, and the pouring forth of large quantities of mucus from the mouth and nares, which in her unconscious condition was extremely dangerous, and of such serious import that I was afraid she would die from the mucus in her bronchial tubes. The condition caused by the pilocarpine was more serious for the time being than the convulsions. She became violent, and hoping to check the mucus I gave a hypodermic injection of morphine gr. $\frac{1}{4}$ and atropine gr. 1-100, with good result, quieting the patient and checking the excessive secretion of mucus. The convulsions finally ceased after two hours and she remained comatose until 3 p.m. As there is nearly always edema of the lungs present, pilocarpine is dangerous, and should be discarded in eclampsia. My reason for reporting this case is because I do not think that pulmonary edema has been given sufficient prominence, as a result of administering pilocarpine.

[We are in entire accord with Dr. Cornell in this conclusion.]

K. C. M.

The Importance of Rickets in Girls from an Obstetrical Standpoint.

C. S. Bacon, Professor of Obstetrics, in the *Chicago Polyclinic*, has an article in the April number of the *Clinical Review* on this subject. Some cases are cited illustrating the nature of the pelvic deformity to which rickets may give rise, and the resulting difficulty in labor; and the diagnosis and treatment of rickets are dealt with. We are especially interested, however, in the author's statement that rachitic contraction of the pelvis occurs in from 3 to 7 per cent. of all women. We venture to think that these figures are too high for Canada. Nevertheless, measurements taken in the city maternities indicate that minor degrees of pelvic contraction are more common in this country than is generally supposed.

K. C. M.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN AND J. O. ORR.

Purulent Ophthalmia of the New-Born.

E. Lander (*Cleveland Medical Journal*) says that statistics show the serious character of this disease. It is estimated that at least 25 per cent. of the blindness that exists in the civilized world to-day is the result of purulent ophthalmia. This blindness, beginning as it does with life itself, so handicaps the individual affected that, instead of becoming a producer, he remains more or less a consumer only, and to that extent a charge upon society.

By a brief calculation he shows that the financial loss to the United States alone, caused by this disease, is not less than \$7,500,000 ($7\frac{1}{2}$ millions) annually. Most of the European governments, and of the States, require by law that all cases of purulent ophthalmia shall be reported to the authorities, in this way classing it with diphtheria, scarlet fever, etc. It is generally admitted that infection takes place during delivery.

Knowing the source and cause of purulent ophthalmia in the new-born, our treatment is naturally divided into prophylactic and curative. Prophylactic measures are essentially those which belong to the obstetrician and may be considered under two divisions: those adopted before the child is born, and those adopted after the child is born. The first necessarily must be an attempt to free the vagina of all pathogenic germs by thorough washing out with an antiseptic fluid regularly, some days before expected confinement. It is not difficult to understand how next to impossible it is to render a septic vagina completely aseptic. However carefully the irrigation is done, there are likely to remain some germs hidden away among the folds of the mucous membrane. The second division has to do with the destruction of the germs that may have entered the conjunctival sac during the passage of the head through the vagina. For this purpose different germicides have been used. The best results were obtained from the 2 per cent. silver nitrate and 1 per cent. bichlorid solutions. The disadvantage of the bichlorid solution is the greater irritation it causes. The procedure is very simple. As soon as the child is born the face is wiped clean, the eyelids are separated with the fingers, and a drop of a 2 per cent. silver nitrate solution is allowed to fall on the eyeball. While this is the original Credé method, we believe it to be a safe precaution to follow the application of silver nitrate solution with an application of sodium chlorid solution to neutralize any excess of the former.

Curative treatment must be carried out with much energy regardless of the tender age of the patient. One of the first necessities is to keep the conjunctival sac free from pus. This is best accomplished by the frequent use of warm 3 per cent. solution of boric acid. Ice cold applications must be used three times daily, from one to three hours at a time. They may be pledgets of lint taken off the ice. (Caution must be used in these applications. So long as the lids are much swollen they may be pushed, but if there is little swelling of the lids the cold may seriously affect the cornea.) Among the many germicides used to destroy the micro-organism, the most popular still is a solution of silver nitrate, 1 per cent. The author does not recommend protargol.

The Mydriatics: The Motive and Method for their Employment.

In a valuable article (*The Ophthalmic Record*, January), S. D. Risley discusses the use of the mydriatics in the correction of errors of refraction. As there is much difference of opinion on this point the article is timely. It is, however, the so-called "oculist-optician" that opposes their use: there is pretty general agreement among ophthalmologists of experience in regard to their value. The design of the author is primarily to discuss the motive for the employment of mydriatics. He first considers what the "model eye" is, and he considers the emmetropic to be the model one, and therefore needing no correction by glasses. Any departure from emmetropia he regards as an abnormality—abnormality leads to disease. And he considers that the prescribing of correcting glasses for defective or diseased conditions is not the function of the optician, but of the ophthalmologist.

The first duty of the surgeon is to remove the cause of the diseased conditions by prescribing suitable glasses, and thus do away with the eye-strain, upon which pathological change depends. Some of these cases, such as simple hyperopia, can be corrected without a mydriatic, and thus get present relief. But even in those cases the correction is not full, and they have to return in a few weeks or months to get a stronger glass. But if astigmatism of even a low degree is present, or if there are pathological changes in the fundus, it is almost impossible to get a proper correction without the use of a mydriatic. And it must be observed that the mydriatic is not only used for its cycloplegic effect, but for its therapeutic properties, since its calming effect over the nerve supply of the eye is an important factor in relieving the pathological states of the fundus oculi. Where there are such states of the fundus, homatropine will not have the same curative effect as atropine.

Cases are given to show the necessity of applying a mydriatic in a very large percentage of cases of asthenopia applying for relief.

Advancement Operation Performed by the Aid of a New Tendon Tuck.

The older operation of dividing one of the tendons in the treatment of strabismus is giving way to that for advancing the opposite tendon. This advancement is often accomplished by folding the tendon upon itself, and then suturing. To facilitate this folding, various instruments for "tucking" the tendon have been devised. F. C. Todd (*Ophthalmic Record*) has described an instrument which has several advantages, among which may be mentioned that the bulk of the instrument lies on the cheek, out of way of the operator, and that one prong is introduced under the tendon when the prongs are crossed, but when the tuck has been taken the prongs are separated, and so do not interfere with the introduction of sutures. In operating, the tendon having been exposed, the prongs are inserted, then separated by a set screw to just the extent the operator wishes to make his "tuck." The sutures then can be readily inserted through the three layers of tendon, one at the upper and one at the lower border. Then another black silk suture is passed through the loop, and ultimately the conjunctival flap is stitched down.

J. T. D.

PEDIATRICS.

IN CHARGE OF ALLEN BAINES, W. J. GREIG, AND W. B. THISTLE.

Primary Intestinal Tuberculosis in Children—(*Archives*, December, 1901, by BOVAIRD, New York).

British writers claim that a very large number of cases of tuberculosis in children are produced by infection of the intestinal tract by tuberculous milk. Americans (notably Holt) claim that the cases of this kind are rare, and that intestinal infection is secondary to that of the air passages, *i. e.*, that the primary lesion is in the lungs. In support of this claim, he gives the result of 250 autopsies made on tubercular children, by himself and Northrup, and in these there was only one case of undoubted primary intestinal infection.

This discussion is rendered more interesting in view of the doubt cast by Koch on the identity of human and bovine tubercle bacilli.

The above article contains nothing original, but is a summary of writings and cases given by various American and European writers. His conclusions are:

1. That English (chiefly London) reports alone show considerable numbers of cases of primary intestinal tuberculosis.
2. That it is a rare affection in or about New York, little more than 1% of the cases of tuberculosis having this origin.
3. That the proportion of tuberculous cases found at autopsy in New York is lower than that of European observers.
4. That the evidence connecting tuberculosis among children with the consumption of milk of tuberculous cows is very scant.

Treatment of Tuberculosis in Infancy and Childhood, with special reference to the use of Guaicol—(*Archives*, December, 1901, RACHFORD).

Tuberculosis in infancy and childhood is essentially a disease of the lymphatic structures. From its point of entrance into the body the bacilli are arrested by the nearest lymph node, the chief of these to be infected being the tracheo-bronchial and mesenteric lymph nodes. These lymph nodes may be the only organs affected for a long time and, in fact, the disease may never go farther, but often in susceptible cases the intestinal tract or the pulmonary tissue may be affected. The writer claims that the prognosis of these cases in childhood is much better than it is in adults, and hence the importance of early diagnosis, and refers to an article of his in the *New York Medical Journal* in 1895, on the "Symptomatology of Tuberculosis of the Lymph Nodes."

Treatment.—The most important point is proper nutrition; next in importance is fresh air, and thirdly the use of guaicol. He refers to an article published by him in 1894, in which he dwells on the value of inunctions of guaicol. He has continued to use this ever since, and has become more convinced of its value.

- R Guaicol, ℥i.
 Lanolin, ℥ii.
 Adeps, ℥v.

Sig.: A level teaspoonful to be rubbed into the chest at bed-time.

The *raison d'être* of this treatment is that guaicol is rapidly absorbed by the lymphatics, and thus comes directly in contact with the bacilli in the lymph nodes. It has very little value in the tuberculosis of adults. In tubercular peritonitis, the good results following this treatment show themselves at once, and

the author has frequently seen the distended, tender and board-like abdomen lose its tenderness, etc., within a period of three weeks.

When the active symptoms subside he often substitutes the carbonate of guaicol internally for the inunction treatment. This may be given mixed with a little milk-sugar. Guaicol holds first rank as an intestinal and pulmonary antiseptic, and one of its uses may be in the control it has over the growth of the streptococci which are so often associated with the bacillus of tuberculosis.

In the chronic forms of tuberculosis, or even in the acute tuberculosis, after the active symptoms have been controlled by rest, fresh air, diet and the guaicol treatment as above outlined, ol morrhuae is one of the most valued remedies, and should be given as a matter of routine.

Iodide of iron, while of doubtful value when fever is present, is very useful in treatment of the anæmia of tuberculosis. Arsenic and malt are referred to. And it may be necessary and expedient to resort to surgical proceedings under certain conditions.

Case of Myotonia Congenita—(*Archives*, December, 1901, by GARDINER, Colorado Springs).

Voluntary motion was performed more slowly than normal, but increased in speed when repeated many times. Also that fright, anger or any emotion increased the difficulty. After a period of muscular repose, he can walk or stand with extreme difficulty. He moves as if overcome with sleep, or if he were wading in water; after a time he moves more quickly and can run, at first slowly, lifting his legs as if made of lead, then faster and more naturally, and finally he can run almost as well as would a rather slow and clumsy boy of his age. After a rest he is again so stiff that if suddenly called on to exert himself he will stumble and fall like a log, incapable of motion. His muscles are larger than normal, biceps eight inches, calves eleven inches. Height three feet nine and a-half inches, and weight fifty pounds. Muscular system developed much beyond that of a boy of his age, and his muscles have the appearance of those of an adult who has been an athlete, the hypertrophy being pronounced. The boy is six years old.

Myotonia Congenita, or Thomsen's Disease, is described as a malady the chief feature of which is that in the execution of voluntary movement of any kind the muscles brought into play remain contracted for some time. Cause unknown, but a great width of muscle fibre is found, ranging from $\frac{1}{16}$ to $\frac{1}{8}$ of an inch, normal fibres averaging $\frac{1}{16}$.

Value of the Widal Re-action in Children—(By MILTON A GERRHALL).

Six hundred and seventy examinations had been made in one hundred and ninety-nine cases, and of these eighty-four were typhoid and eighty-one gave the re-action. Eleven of the cases gave the re-action by the seventh day.

Blackadar, in a series of forty-three cases, found the re-action in 70% before the second week.

The Widal test was of greater importance in children than in adults, because of the frequently atypical character of typhoid in children.

W. J. G.

How to Read in Bed.

If every one reading lying down will so arrange his lounge or bed that the light comes over the head without striking the eyes, and falls well upon the page: if he will hold his book at a long reading distance, and take care that the line of letters shall be at right angles to the line of vision, all of which may require a book-rest, he can be sure of doing his eyes no more harm than if he were sitting up. More than this, there is much positively in favor of reading lying down. The recumbent posture allows more rest of all the bodily structures than the sitting posture, and there is greater possibility of resting and repair in that position. Those who have tried it know the benefits accruing, after a hard day's work, from the rest possible when doing a long night of reading, which the press of business makes almost an absolute necessity. One more fact is to the credit side of the score. Whenever possible we bring gravity into play to relieve congestion, especially that of a passive type. It has long been recognized that throwing the head slightly back beyond the perpendicular brings gravity into play to empty the veins which are principally over-filled by prolonged eye-work, but why this is not carried to its logical conclusion is a mystery. It is plain that placing the head back in a horizontal position so absolutely meets the whole problem of a relief of congestion by gravity—and it is such a very important problem—that it seems strange that people with weak eyes do not habitually practice reading in a recumbent position, with the head raised only so much as is necessary to make the position perfectly comfortable. Such advice, carried out with absolute care as to light and the position of the book, would in the case of a thousand busy people add largely to the number of hours which reading could be indulged in without detriment to the eyes or general health.—*Dietetic and Hygienic Gazette*.

Editorials.

THE ONTARIO MEDICAL ASSOCIATION.

The twenty-second annual meeting will be held in the Educational Department, Toronto, on June 4th and 5th.

The preliminary notices have been in the hands of the members for several weeks, and thus far the list of papers promised augurs well for the success of the meeting. The Committee looks for a still further response and more general contribution to the programme, as it is only by the co-operation of the profession that success may be assured.

A new departure in this year's meeting will be a session entirely devoted to the exhibition of clinical cases. While it is natural to suppose that the majority of these cases will be from Toronto, it is hoped that members from outside the city will endeavor to contribute to this section of the work. To facilitate this as far as possible, arrangements have been made with the railroads by which patients brought for presentation at the meeting may enjoy the same privileges—as regards reduction of fare—as are extended to members of the Association.

It may be well to emphasize the fact that such reduction is in proportion to the number of railroad certificates presented to the Secretary at the time of the meeting, and not on the total attendance at the meeting. There has been some misunderstanding in the past on this point.

The provisional programme will be sent out on May 20th, and it is desired that all titles of papers and notes of clinical cases be in the hands of the Secretary prior to that date.

Some of the subjects which will be brought up for discussion are: "Dry Labors," "Obstetric Emergencies," "Placenta Previa," "Anesthesia," "Pneumonia," "Cerebro-Spinal Meningitis," "Primary Tracheal Diphtheria," "Ventre-Fixation," "Anomalous Forms of Smallpox," "Cerebral Embolism," and others.

Communications *re* papers, etc., may be sent to Dr. Fotheringham, 36 Carlton Street, Chairman of Committee on Papers, or to Dr. H. C. Parsons, General Secretary, 72 Bloor Street West, Toronto.

VEGETARIANISM.

The recent increases in the prices of meat have driven many to complete or partial vegetarianism. This is similar to the results that have obtained in some of the European and Asiatic countries where large sections have adopted a vegetable regimen not from choice but from stern necessity. Some of the learned German physicians are discussing the subject from a scientific standpoint. Professor Hueppe argues that as the anthropoid ape was connected with the evolution of man, the primeval man could not have been a vegetarian. The ape that most resembles man lives on nuts, eggs, little birds and insects, just as the Arabians do at the present day. He thinks it probable that in the struggle for existence man gave up nuts and eggs and became an eater of meat. Later he used a mixed fare of meats and vegetables. Later still came the strictly vegetable fare.

What is a vegetable? The question seems simple enough; but, at the same time, is not altogether easy to answer. We may take one of the ordinary definitions, such as, a plant used or cultivated for food for man or domestic animals, as the turnip, cabbage, potato, bean, etc. What is the difference between vegetables and fruits? If our first question were definitely answered the second would be scarcely necessary. It is really difficult to fully answer either question. Vegetables and fruits are sometimes loosely distinguished by the usual need of cooking the former, while the latter may be eaten raw. But, as Webster tells us, the distinction often fails as in the case of quinces, barberries and other fruits, and lettuce, celery and other vegetables. Tomatoes, if cooked are vegetables, if eaten raw are fruits.

The eating of vegetables only became possible to any extent after the invention of cooking. There is no doubt that a mixed dietary is the most suitable for a civilized man. However, we know that a man may live and thrive on vegetables alone. It is fortunate, therefore, that if meat gets very expensive we can get along without it. Again, if on an average we consumed only half as much meat as is our custom now, we would be much better off, both physically and financially.

THE ABOLITION OF MALARIA AND YELLOW FEVER.

One of the greatest sanitary discoveries of our day has received a notable endorsement by the "Report of Vital Statistics of the City of Havana year 1901" [and January, 1902], "made by Major W. C. Gorgas, Surgeon U.S.A., Chief Sanitary Officer. Bergey tells us that "the theory of the propagation of yellow fever by mosquitoes was advanced by Dr. Carlos J. Finlay, of Havana, as early as 1881." In 1900 a commission of the Army Board, with Surgeon-Major Reid as President, was sent to Cuba, and as a result active work was instituted in 1901. Briefly, this consisted in measures for destroying the *stegomyia* mosquito and its larvæ, and more immediately in keeping the mosquito away from all persons affected with yellow fever, and thus preventing the reception and carriage of infection from infected persons to those not infected and non-immune.

Dr. Gorgas says we have pretty definite data for believing that yellow fever has been endemic in Havana since the English occupation in 1762, and although the general clearing up and sanitary measures introduced have immensely lessened the general death rate, they have had little effect upon the yellow fever: and the same remark is true of the various processes of disinfection of places and material. Tables are given of deaths from yellow fever for the last forty-five years, and by months for the last ten years. From these Dr. Gorgas draws many interesting figures, and touches upon the influence of immigration of non-immunes. Our space forbids our giving these. We take from the table of the last ten years some figures which will briefly and conclusively show what has been effected. In the eleven years April, 1890, to March, 1901, there has been an average of over 466 deaths from yellow fever, the lowest two being 128 in 1898, and 122 in 1899 (little immigration), whilst the number mounted up to 302 in 1900. From April, 1901, to January, 1902, inclusive, the number has been five, and there is hardly a possibility that any new case should arise in January, February or March. The figures by months are even more striking. The reader will bear in mind that the mosquito crusade was commenced in March, 1901. We give all the

months; but the months October to January show the most remarkable contrast.

Months.	Average Deaths.	Minimum Deaths.	Deaths in 1909-1.	Deaths in 1901-2.
April	12	0	0	0
May	18	0	2	0
June	40	1	8	0
July	70	2	30	1
August	84	13	49	2
September	70	18	52	2
October	66	25	74	0
November	48	13	54	0
December	29	8	20	0
January	14	1	7	0

We have not given any figures for February and March, as the reports for those months of 1902 are not to hand.

In the text of the report Dr. Gorgas says: "Still more marked is the fact that since September 28, 1901, no cases at all have occurred, particularly when it is considered that October and November rank among the worst months for yellow fever. Not only was this result obtained from a city full of non-immunes with infection in all parts of it, but there were half a dozen infected towns in railroad communication with Havana. Constant intercourse was kept up and no interference with commerce occurred. Goods of all kinds were allowed to come into the city freely. No restriction was put upon bringing in clothing, bedding, and so on, from these infected points. The only infected material from the towns looked after was the sick man, who was carefully sought out and screened from mosquitoes."

Amongst the tables of "work done" the *Stegomyia* Brigade and the "Anopheles Brigade" have distinct tables. In general terms, the measures for stopping the breeding of mosquitoes have been similar to those elsewhere employed, but on a very systematic and extensive scale: drainage and ditching, pouring petroleum on surfaces of still water, protecting household supplies by screens, breaking up and emptying out supplies containing larvæ, etc. The general orders contain provisions for the destruction of mosquitoes by fumes of sulphur dioxide, formaldehyde, insect powder, etc.

Dr. Gorgas states that there has been a great decrease in the amount of malaria, and we see in one of the tables that its

death rate for 1901 is less than for the ten preceding years, though not much less than that reported for 1890. We would be glad, and hope at some time, to have more detailed statements to add to the fine work already done by Manson, Ross, Mattei, Sambon and Low, Grassi, and our fellow-countryman Elliot and others, in giving the Anopheles his due. The reporter has figures in his tables in support of his statements of the lessenings of the general death rate, including those two prominent scourges tuberculosis and smallpox. In regard to the latter, however, we would point out that there was a similar lull in smallpox in 1882-6, inclusive. It would be interesting to know the causes of this and of the subsequent exacerbations, especially interesting to us of the North American continent and of Europe, at the present time.

The report is a valuable contribution to sanitary science. Besides what we have already noticed, the Department has done a lot of work in general sanitation, and bacteriological examinations of blood and cultures, and sputa, in connection with Malta fever, filariasis, malaria, typhoid, glanders, diphtheria and tuberculosis. The workers of the Army Sanitary Department have had exceptional advantages and opportunities by reason of the material at hand, and the discipline and authority which they could employ. At the same time they have had serious responsibilities and dangers. Some of them have heroically fallen on a battlefield as glorious as any of those in which the enemy were fellow-men. All honor to them. Those who have survived we congratulate on their grand achievement, of demonstrating practically one of the greatest discoveries of our day.

We regret that the Army Department has to hand over its work, and trust that the demonstration which it has made will have its effect in stimulating the incoming *regime* to follow up the sanitary improvements instituted. w. o.

SUIT FOR MALPRACTICE.

Drs. N. J. Hopkins and A. M. Clark were the defendants in a recent vexatious suit for alleged malpractice. The daughter of the plaintiff sustained a very serious fracture of the arm in June, 1901. For certain reasons, among them being that of non-union, amputation was performed by a third physician.

The plaintiff, Mr. John Lynburner, entered suit, claiming \$10,000 damages. The case was tried in Cayuga before Mr. Justice Ferguson, and was concluded April 17th. After hearing the evidence on both sides the Judge dismissed the action, holding that the doctors did all that medical skill could suggest for the patient.

IMPORTANT SUIT IN THE SUPERIOR COURT IN EQUITY, MASSACHUSETTS.

In the case of the Breitenbach Company, complainant, v. The Thayer Company, defendant, a verdict was rendered in favor of the complainant. We quote as follows from the decree of the Court:

COPY.

"The above entitled cause having come on to be heard, and a trial having been had, and the evidence offered by each party having been received and considered, and it appearing to the Court that the use of the wrapper and package employed by the defendant for its preparation of iron and manganese, as described in the Bill of Complaint, is calculated to deceive the public and enable the defendant's preparation to be passed off as the preparation of the plaintiff known as Gude's Pepto-Mangan, it is hereby ordered, adjudged and decreed, that the defendant, Henry Thayer & Company, its directors, officers, agents and servants, be and they hereby are enjoined from making or using in any way, the terra cotta colored wrapper with white letters thereon, and the package in connection therewith, heretofore used by the defendant, for its preparation of iron and manganese, or any other wrapper or package therewith which imitates the wrapper used by the complainant, the M. J. Breitenbach Company for its Gude's Pepto-Mangan, and from selling or offering for sale any preparation of iron and manganese in any package or wrapper of a terra cotta color with white letters of the same style, shape and general arrangement as those of the aforesaid wrapper used by the plaintiff, the N. J. Breitenbach Company."

Personals.

Dr. W. H. B. Aikins visited New York early in May.

W. E. Struthers, M.B. '97, has removed from Huntsville to Lanark, Ont.

Dr. Arthur Small, of Toronto, was married on May 12th to Mrs. Barnes, of Chicago.

John Crawford, M.B. '94, who has until recently practised in Dakota, is now in Everett, Wash.

Dr. H. H. Sanderson, of Windsor, Ontario, is now spending some time in London, England.

Dr. Ingersoll Olmstead, of Hamilton, was married on May 17th to Miss Edith Hamilton Wood.

Dr. E. E. King attended the annual meeting of the American Genito-Urinary Association at Atlantic City.

Dr. Bruce L. Riordon, of Toronto, returned May 16th from New York and Boston, where he had spent about ten days.

Dr. Elliott, Superintendent of the Muskoka Cottage Sanitarium, Gravenhurst, spent a few days in Toronto early in May.

S. H. McCoy, M.B. '92, of St. Catharines, Ont., is now in England. His address is 17 Torrington Square, London, W.C.

Dr. Graif, of Vancouver, is attending the Post-Graduate Medical School, doing special work on the eye and ear. He will shortly go to England and continue his special work in London.

The following Canadian doctors are registered at the Canadian Government Office, London: Doctors F. L. M. Grasett, F. C. Hood, R. J. Dwyer, F. W. Marlow, C. E. Treble, W. Cerswell, E. Weir.

Dr. Price Brown spent the latter part of May in Boston and New York. His chief purpose was to attend the annual meeting of the American Laryngological Association, which met this year in Boston.

Dr. Robert Harbottle, of Burford, was released from the Central Prison, April 30th, after being retained a little more than three months. After his trial for shooting with intent to kill he was sentenced to imprisonment for twelve months.

Dr. A. W. Mayburry, of Toronto, started May 17th, for England and the Continent, where he will visit the principal hospitals with regard to research work in connection with diseases of nose, throat and chest. He will be absent about three months, and on his return will resume his special practice at 253 Spadina Avenue.

Recently Professor Ramsay Wright delivered a lecture on "Malaria and the Mosquito," before the members of the Kent County Alumni Association and their friends. The lecture was very largely attended, and, at the close of the meeting, Dr. T. K. Holmes, M.D. '67, moved a vote of thanks to the lecturer, which was seconded by Rev. J. H. Osterhout, B.A. '00

The following Canadian practitioners have recently passed the necessary examinations to admit them to membership in the Royal College of Surgeons, England: Dr. Charles Buckingham Shuttleworth, Trinity Medical College, Toronto: Dr. Walter Henry Phillip Hill, McGill University, Montreal; Dr. Henry Ardagh Kingsmill, Western University, London, Ontario.

At the June Convocation the Senate of the University of Toronto will confer the degree of LL.D. upon the following gentlemen: The Honorable John Douglas Armour, Chief Justice of Ontario; W. H. Drummond, M.D., Montreal: Rev. J. Munro Gibson, D.D., London, Eng.; the Honorable J. M. Gibson, K.C., Attorney-General of Ontario; the Honorable Richard Harcourt, K.C., Minister of Education of Ontario; James P. Whitney, K.C.; James J. Foy, K.C.; Ira Ramsen, President of Johns Hopkins University; Christopher Robinson, K.C., Chancellor of Trinity University; Maurice Hutton, Principal of University College; R. Ramsay Wright, Dean of the Faculty of Arts; John Galbraith, Dean of the Faculty of Applied Science and Engineering; R. A. Reeve, Dean of the Faculty of Medicine. The degree of Doctor of Music will be conferred upon Mr. F. H. Torrington.

Book Reviews.

The Four Epochs of Woman's Life. A Study in Hygiene. By ANNA M. GALBRAITH, M.D., Author of "Hygiene and Physical Culture for Women." Fellow of the New York Academy of Medicine, etc. With an Introductory Note by JOHN H. MUSSER, M.D., Professor of Clinical Medicine University of Pennsylvania. 12mo volume of 200 pages. Philadelphia and London: W. B. Saunders & Company, 1901. Cloth, \$1.25, net.

Dr. Musser in his introductory note intimates that the truths expressed in a modest, pleasing and conclusive manner in this book should be known by every woman. We hope the women of Canada can manage to exist without any such book for a long time to come.

Medicine, Surgery and Hygiene in the Century Review. By EZRA HURLBURT STAFFORD, M.D., Member of the College of Physicians and Surgeons of Ontario, Physician to the Hospital for Insane, Toronto; Associate Editor the *Canadian Journal of Medicine and Surgery*, Lecturer to the Women's Medical College, Toronto, etc. London, Toronto, Philadelphia: The Linscott Publishing Company, 1901.

This is Volume III of the Nineteenth Century series, published by the Linscott Company in twenty-five volumes. The author has shown himself to be a writer of no mean ability in the past by the publication of many interesting brochures on certain subjects in science. In this volume he gives us a plain and untechnical account of the progress of medicine and surgery in the nineteenth century, which will be found interesting by lay and medical readers alike. We desire to congratulate our friend Dr. Stafford on the signal success which has crowned his efforts to give us a very charming book.

A Practical Manual of Insanity. For the student and general practitioner. By DANIEL R. BROWER, A.M., M.D., LL.D., Professor of Nervous and Mental Diseases in Rush Medical College, in affiliation with the University of Chicago, and in the Post-Graduate Medical School, Chicago; and HENRY M. BAXISTER, A.M., M.D., formerly Senior Assistant Physician Illinois Eastern Hospital for the Insane. Handsome octavo of 426 pages, with a large number of full-page inserts: Philadelphia and London: W. B. Saunders & Company, 1902. Canadian Agents: J. A. Carveth & Co., Toronto. Cloth, \$3.00, net.

This work, intended for the student and general practitioner, is an intelligible, up-to-date exposition of the leading facts of psychiatry, and will be found of invaluable service, especially to the busy practitioner unable to yield the time for a more exhaustive study. The work has been rendered more practical

by omitting elaborate case records and pathologic details, as well as discussions of speculative and controversial questions. Certain special features of the work, also broadening its field of usefulness, are the mention of the forms of insanity not usually met with in hospitals, and the including of a comparative table of classification and a chapter on some of the ethical questions relating to insanity as they may arise in the practice of medicine. Indeed, we know of no work of its scope that covers the field so completely, yet concisely and clearly.

A Text-Book of Surgery. By DR. HERMAN TILLMANN, Professor in the University of Leipsic. Translated from the seventh German edition by Benjamin T. Tilton, M.D., Instructor in Surgery Cornell University, and John Rogers, M.D., Instructor in Surgery Cornell University. Edited by Lewis A. Stinson, M.D., Professor of Surgery Cornell University. Vol. I. The Principles of Surgery and Surgical Pathology, with 516 illustrations. New York: D. Appleton & Co. Cloth, price 00.

This is a new translation, being from the last seventh German edition, four German editions being issued within the last seven years. It has been revised so as to embrace the latest facts and teachings. It is a work of three volumes, the other two yet to follow. In this volume there are three sections on general principles; first, those governing surgical operations (preparation of the patient, anesthesia, procedure and precautions during operations); second, methods of applying surgical dressings, including the preparation of them, bandaging, etc.; third, surgical pathology and therapy, and very fully these are taken up. Some of the bacteriological plates are in colors. A considerable amount of space is devoted to a subject which has of late been largely discussed both in our various societies and in the columns of the *British Medical Journal*—the various phenomena connected with chloroform and ether, morphine, chloroform, narcosis, etc. An interesting tree of a hemophilic family is traced by Lossen through four generations, showing transmission to males through females. A and his wife were not bleeders; they had four sons and two daughters; three of the sons were bleeders and neither of the daughters, but one of the daughters had eight sons, all bleeders, and three daughters not bleeders. Her sister had five sons, all bleeders, and four daughters not bleeders. Two of A's sons had two girls and a boy between them, all non-bleeders. In the fourth generation, out of twenty members there was only one bleeder, the son of a daughter's daughter. A great deal of attention is given in the first and second sections, respectively, to all the various general and local anesthetics, of which a great variety is mentioned, as also to a great variety of antiseptics and modes of preparing ligatures and dressings.

The American Year-Book of Medicine and Surgery for 1902. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs and text-books. Arranged, with editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D. In two volumes—Vol. I, including General Medicine; Vol. II, General Surgery. Price, per set, \$6.00; per volume, cloth, \$3.00 net; half morocco, \$3.75 net. Philadelphia: W. B. Saunders & Co., 925 Walnut Street. Toronto: J. A. Carveth & Co., Canadian Agents.

The plan of issuing the Year-Book in two volumes, inaugurated two years ago, met with such general favor with the profession that the publishers have decided to follow the same plan with all succeeding issues. Each volume is complete in itself, and the work is sold either separately or in sets. This arrangement has a two-fold advantage. To the physician who uses the entire book, it offers an increased amount of matter in the most convenient form for easy consultation, and without any increase in price; while the man who wants either the medical or the surgical section alone secures the complete consideration of his branch without the necessity of purchasing matter for which he has no use. The contents of these volumes, critically selected from journals, monographs and text-books, is much more than a compilation of data. The extracts are carefully edited and commented upon by eminent American specialists, the reader thus obtaining, not only a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, but also the invaluable opinions of the leading American specialists. As usual, this issue of the Year-Book is not lacking in its illustrative feature; for, beside a large number of text-cuts, the Surgery volume contains five, and the Medicine volume four, full-page inserts. In every way the Year-Book of 1902 fully upholds, if it does not strengthen, the reputation won by its predecessors.

Contributions to Practical Medicine. By SIR JAMES SAWYER, Knt., M.D. (Lond.), F.R.C.P. (Lond.), F.R.S. (Ed.), F.S.A., Senior Consulting Physician to the Queen's Hospital; formerly a Professor of Medicine, Professor of Materia Medica and Therapeutics, and Professor of Pathology in the Queen's College; Physician to the Birmingham and Midland Hospital for Sick Children, President of the Midland Medical Society, Vice-President of the New Sydenham Society, and President of the Clinical Board of the General and Queen's Hospitals, etc. Third edition. Revised and enlarged. Birmingham: Cornish Brothers, 1902.

This series of clinical lectures and observations, emanating from so well known an authority as the author, must be expected to contain something of value; nor is the reader disappointed. The observations on insomnia are very pertinent, dealing practically with a subject that often taxes our resources; so also are the remarks on constipation and intestinal obstruction. The value of inspection as a means of diagnosis in

diseases of the lungs and pleura, and the importance of accentuation of the second pulmonary sound in cardiac affections, are emphasized with the precision of the practical teacher. The author has in his nineteen contributions given us the advantage of his large clinical experience. His suggestions in the treatment of gastralgia, hemorrhoids, eczema, chorea and asthma will undoubtedly be appreciated by many, as will his suggestion for the use of ether as a menstreum in medication by the skin, and the use of calcium chloride in the night sweats of phthisis.

Johnson's First Aid Manual. Suggestions for prompt aid to the injured in accidents and emergencies. Edited by FRED. B. KILMER. Illustrated. Pp. 113. New Brunswick, N.J.: Johnson & Johnson, 1901. Cloth, 50 cents.

This handbook is full of practical suggestions for those rendering first aid to the sick and injured. The subject matter is good, and the illustrations make the text most comprehensible to the lay mind. It is designed for use with Johnson's Accident Case, but apart from this it makes a very useful source of information for those desiring instruction in the means to be adopted in emergencies.

Anesthetics. A practical guide to the administration of anesthetics. By R. J. PROBYN-WILLIAMS, M.D., Senior Anesthetist and Instructor in Anesthetics at the London Hospital; Lecturer on Anesthetics at the London Hospital Medical College; Assistant Anesthetist at the Dental Hospital of London. London: Longmans, Green & Co., 1901. Toronto: The Copp Clark Co., Limited. 200 pages. Cloth. Price, \$1.60.

This is an eminently practical handbook, designed to meet the wants of the early students of anesthesia. The general state of anesthesia is carefully considered in detail, and the difficulties and dangers practically dealt with. The descriptions of apparatus are confined to those in general use, and are explained by means of diagrams. Fifty pages are devoted to the use of nitrous oxide, alone and with oxygen; while ether, chloroform and their mixtures receive full consideration. A chapter on the choice of the anesthetic is most practical. The section on local anesthesia is brief but useful. It is a book intended for the student, and as such we highly commend it. Much also will be of value to the general practitioner. C. J. C.

Report of "Vital Statistics of the City of Havana" made to Brigadier-General Leonard Wood, U.S.A., Military Governor, Head-Quarters Department of Cuba. By Major W. C. Gorgas, Surgeon U.S.A., chief sanitary officer.

A review will be found in our editorial columns.

Selections.

SURGICAL HINTS.

Warts and moles may be removed by touching them daily with glacial acetic acid, which must not be permitted to touch the healthy skin. If this is carefully done no scar will be left.

Since, in modern surgery, it has been recognized that the skin is the principal source of infection, it is well, in operating, to use one knife to cut the skin and to replace it by another for the deeper work.

In all emergency cases of operations in which the patient shows any evidence of bronchitis, begin the treatment of this condition at once. A good sized dose of digitalis with one of the salts of ammonia before operating is useful.

It is never likely that gonococci are present in the female genitalia when the mucous membranes appear to be perfectly healthy; on the other hand, they may be present in any case in which an unhealthy secretion appears, however mild the latter may be.

After amputations, never wait to apply an artificial limb beyond the time when the stump is well healed and the patient is strong again. Disuse of the stump for too long a time makes it less able to stand the artificial limb. The only exception to this rule is where the operation was done for malignant disease, where early pressure and concussion might favor a return.—*International Journal of Surgery.*

Night Sweats in Phthisis.

All physicians know the difficulty of keeping the night sweat of phthisis in control. Almost every known remedy has been tried since the Greeks used agaricin down to the present. Graves and Stokes used Dover's powder, which in time gave place to mineral acids, zinc and belladonna, atropine, and a host of other specifics. To the long list Nolda adds tannoform, the external use of which he recommends. In seven out of eight cases in which he had the front and back of the thorax dusted with powdered tannoform it checked the sweating (*Berl. Klin. Woch.*). This method of treating the symptom has the advantage of not interfering with the digestive function, which is usually so imperfectly performed in such cases, neither does it in any way preclude the use of any of the other

antisudorifics. The powder of itself should prove an agreeable application to the skin and promote the comfort which is such an essential factor in producing sleep in such cases.—*Medical Press and Circular*.

Rheumatic Arthritis.

The following is recommended as a relieving application in this painful affection:

R	Salicylate of methyl.....	℥ iv.
	Chloroform	℥ ii.
	Menthol	gr. xxx.
	Lanoline	℥ ii.

M.

S.—Apply to part.—*Clinical Review*.

To Remove Dandruff.

According to *Merck's Report*, among the remedies which have been found to be most serviceable in the treatment of dandruff are resorcin, tannoform, salicylate acid and boric acid. The following mixture is recommended as being most efficacious:

R	Resorcin	℥ i
	Tannoform	℥ i
	Acidi salicylate	gr. v

M. Dissolve the powder in three ounces of alcohol and one ounce of water and filter. Sig.: Apply locally to the scalp.

Or:

R	Resorcin	℥ i
	Acidi borici	℥ ss
	Aquæ	℥ v

M. Sig.: Apply locally to the scalp.

The foregoing ingredients may be incorporated with an ointment if desired, such as aquæ unguentum rose (cold cream), adeps lanæ hydrosus, petrolatum, etc.—*Medical Fortnightly*.

A New Theory of Uremia.

The pathology of the condition to which *en bloc* the term uremia is applied remains very obscure, in spite of numerous hypotheses and speculations based on the results of necessarily more or less limited and imperfect researches. Uremia is generally assumed to be the organic manifestation of functional failure on the part of the kidney, in other words, a disease consequent upon, and directly due to, defective elimination. Nevertheless, physiologists and pathologists are by no means agreed as to the nature and significance of the body or bodies alleged to be retained: indeed, the assumption does not reach higher

than mere surmise. It may be conceded that renal insufficiency is the prime factor in the production of the symptoms collectively described as uremia, but it must not be forgotten that renal inadequacy may apply to and explain two very different forms of functional disturbance. The trend of modern research has been to confirm Brown-Séquard's contention in favor of all organs possessing an internal secretion, even in respect of so distinctly an excretory organ as the kidney. The possibility therefore suggests itself that inadequacy of the internal secretion of the kidney may in whole or in part explain the symptomatology of this affection. In support of the existence of an internal renal secretion, Rose Bradford instanced the curious fact that partial removal of the kidney in animals does not necessarily cause any marked modification in the quantity and quality of the urine, yet, in spite of the normal excretion of urea, a marked increase is noted in the proportion of nitrogenous extractives contained in the muscles, from which he infers that the diminution in the quantity of internal renal secretion favors exaggerated disintegration of the muscle substance and perhaps of other tissues. In another direction it has been shown that the injection of dilute solutions of renal substance markedly prolongs life in artificially induced uremia, and the same effect is produced by the injection of normal blood, and especially of blood from the renal vein. These experiments would appear to justify the assumption that the kidney elaborates and passes into the blood some substance which acts as an antitoxin to some other substance or substances as yet unidentified, the harmful effects of the latter being due to their stimulating effect on tissue metabolism, *e.g.*, waste. The data at our command are not yet sufficiently precise to enable any practical scheme of treating uremia on these lines to be formulated, but it is well within the scope of possibility that means may be found of averting this, the outcome of renal inadequacy, in the same way and on the same principles as in the treatment of myxedema, by the methodical administration of thyroid substance.—*Medical Press and Circular*.

Delusions Peculiar to Inebriety.

There is no one symptom of mental change so constant in inebriety, as the delusive faith in the ability to stop all use of spirits at any time. This delusion of free will begins from the first use of spirits and grows with increasing intensity down to the last moment of life. Continuous failures and the experiences of years, without a single confirmatory instance sustaining this belief of ability to stop, make no impressions on the mind. On all other topics there may be a general recognition

of cause and effect and the lessons of experience, but in relation to drink, this delusion grows constantly. The demand for spirits as a controlling power in the organism is unrecognized, and the mind seems taxed to find reasons for explaining the inconsistencies that come from its use. This delusion of strength, to stop at any time, is encouraged by the friends who believe it to be true, and condemn the patient for failure to carry it out. No matter what conditions or necessities may exist for abstaining, spirits are used, and the patient insists that he cares neither for the taste or effects of spirits, and can stop at any moment. This belief is sincere and emphatic, and should a free interval occur in which no spirits are taken, this is considered evidence of the will power to stop at any point. The use of spirits in conditions where personal interests and that of the patient's family suffer, and where the act is practically suicidal, are explained as mere lapses which could have been prevented by a mere act of the will. This delusive state is unrecognized by temperance revival movements and many reformatory efforts, where the central object is to awaken the free will, which is supposed to be simply dormant. In many instances these very efforts intensify and fix the delusion of free will, making recovery more and more uncertain. It is curious that this most insane faith should not be recognized from the every-day experience of failures to abstain by nearly all inebriates. As a symptom of disease, this is beyond all question, and is really more distinct than any other delusion.—*Journal of Inebriety*.

The Treatment of Chronic Bronchitis in the Elderly and Aged.

Henry Campbell, in the *British Medical Journal* of October 12, 1901, briefly sums up the chief points of a paper by him on this topic :

In treating chronic bronchitis in those past middle life, the toxicity of the blood should be kept as low as possible.

The air breathed should be pure, and nasal breathing insisted on.

The diet should be a bare sufficiency, and alcohol indulged in sparingly, or not at all.

Every ounce of superfluous fat should be got rid of.

The general health should be maintained at the highest possible level.

A vigorous circulation should be maintained.

Every precaution should be taken against breathlessness.

Breathing exercises should be resorted to in order (among other things) to preserve the mobility of the thorax.—*Therapeutic Gazette*.

Miscellaneous.

THE PRACTICAL PHYSICIAN.

"The vast increase of our knowledge in both medicine and surgery during the past quarter century is so bewildering that I do not wonder that the student of to-day, even after a four years' course, feels himself quite at sea when he starts out into actual practice. He has been trained to examine the blood in order to make a diagnosis of malaria or anemia, he will not say whether a patient has typhoid or not until he has found the Widal reaction, and although he may find dulness in the chest and high temperature, crepitant râles and bronchial breathing, he is not willing to risk a diagnosis of pneumonia until a specimen has been sent to the laboratory and the pneumococcus has been discovered. Of course, he thinks it a waste of time to study the clinical appearances and symptoms of diphtheria when he can send a culture to the Board of Health and have the diagnosis made for him.

"Far be it from me to underestimate these valuable aids to diagnosis, but I merely wish to emphasize the importance of the clinical side of medicine and surgery, and to impress upon your minds the value of the older methods of determining the nature of disease. You will not all practice in large cities; many of you will be called to treat patients far from the laboratory and even from your own microscope, and you will have to make a diagnosis without their help, and you should, in most cases, be able to do so."

The above quotation is taken from an address of Dr. William B. Coley, which was delivered before the Jefferson Medical College Society of Philadelphia. It embraces a suggestive truth, which is applicable to the present age of medical practice, and it furnishes us a text for thoughtful reflection. We see and hear so much which pertains to the accurate and scientific consideration of pathology nowadays that it is quite natural for us to exist in a professional atmosphere, which occludes the practical experience of the physician who has never had many advantages. We are bound at all times to look into the achievements of the past and admit that there is some virtue in the practice which existed before we knew so much about science.

The treatment of disease is, in a sense, an art, and it may be entirely independent of the extreme scientific knowledge which now prevails. To be sure scientific advancement is a necessary accomplishment, and it should be cultivated and sought

for with unrelenting determination. Our perfected knowledge of pathology has helped us in diagnosis and preventive medicine, but it can never supplant or equal the practical utility of experience. While the revelations of the laboratory are teaching us new ideas relative to the habit and propagation of disease, the practical theory of the curative principle is too frequently lost sight of. The doctor who plods along in the everyday experience of practice is still able to give us many points regarding the management of disease. It is often a serious question whether the physician of large experience and practical attainment is not able to do more good at the bedside than all the students with up-to-date accomplishments.

This train of thought is not to be interpreted as a reflection upon the modern teaching and the modern education. It is rather a suggestion of a greater need to adopt the plain teachings of experience in conjunction with all that science may tell us. We have many illustrations of the highly accomplished physician, who perchance is a successful teacher, and who knows all about the principles of pathology, and yet this very man may be an utter failure in the treatment of disease. This shows the need of two acquirements which must be gained by every successful practitioner. First, he must inherit or cultivate the intuitive principle which comprehends the character of disease and the management of the same through the agency of his treatment. Secondly, he must utilize his scientific knowledge to the end that he may practically apply it to dethrone disease. Any other method in the acquirement of medical education is bound to bring about eventual disappointment in practice.

One has only to look into many of the standard text-books of present date to see how much is said of etiology and pathology and how little is said about treatment. It might also be inferred that when the diagnosis is made the physician's duty is performed. Is it a wonder then, if this line of thought prevails in colleges, that students enter upon their practice with so little ability to take care of disease? If it were only necessary to find the pneumococcus to treat pneumonia or discover the Widal reaction to manage typhoid fever, then the extreme laboratory idea would be the correct theory. This, however, is not sufficient, as we know; the young doctor must understand how to relieve the lung consolidation by means of his remedies and general treatment else his patient may die; he must know how to care for the febrile condition of typhoid, after the blood analysis has been made, or the toxemic danger gains supremacy. And so we might apply illustrations without number to show the necessity of something more than the scientific knowledge of disease.

We so often hear the expression that "diagnosis is the important thing with every practitioner." Indeed it is important but it is not by any means *the* important thing. One may make a direct diagnosis and confirm it by the *post mortem*, but the mandatory requirement should always be the perfect treatment. This can only be settled as we understand the use of our remedies and allied treatment; therefore we should study disease in relation to remedies; our teachers and authors should instruct us in pathology only in association with the clinical idea of treatment. It will not do to say that this or that remedy "may be tried"; there must be some practical deduction which affiliates the remedy with the symptoms of the disease.

Many physicians come into our midst having the precedent of a foreign clinical education and a diagnostic ability as their only resource. We expect much from their attainments, but the doctor with the clinical idea, and the practical experience will often discount them with his results. This does not mean that the pathological knowledge of disease is unnecessary, but it does mean that the principle of treatment must be applied with the pathology.—*The Clinique*.

Medical Men and Gifts from Patients.

A case of great importance to the medical profession has been recently decided in the law courts. The action was brought by the executors of an old lady of eighty to recover from a medical practitioner at Bromley £800. It appears that the money was given to him in four several sums, one of £500, and three of £100 each. The first gift was made in September, 1899, and the last a few days before her death, which took place on March 23rd, 1900. The executors brought no charge against the defendant of fraud or misrepresentation, or any direct or indirect misconduct in obtaining the money, but simply that, having regard to his position as medical attendant upon the deceased, he was incapacitated from receiving or retaining gifts when the donor had no independent advice. Neither was it alleged that the deceased was not in a perfectly competent mental condition. The case was heard last week by Mr. Justice Swinford Eady in the Chancery Division. The Judge ruled in favor of the plaintiff, and said on the admitted facts the defendant must repay the whole of the money with interest. It seemed to his Lordship that it was of the greatest importance to give full force to the rule that forbade gifts from patients to medical attendants unless the donors had independent advice. A stay of execution was granted to allow an opportunity of appealing against this judgment. The application of a similar principle would render nugatory a great many

gifts to churches, to charitable institutions, and to private individuals. Meanwhile, any medical men who are fortunate enough to meet with patients who are grateful as well as wealthy will do well to bear the above case in mind.—*Medical Press and Circular*.

The Specialist in Surgery.

Modern surgery presents a field whose vastness is due to investigators in special lines. In other words, the specialist is responsible for the fact that its boundaries are ever receding towards a horizon whose limits are beyond our ken. As simplicity and accuracy always result from all scientific efforts, however, the laborious researches of the original seekers finally end in the establishment of certain fixed principles and technical methods. Out of chaos order is evolved, and the measures finally adopted and recognized gravitate towards the central point of general surgery and become a part of it. The stupendous achievements of gynecology, for instance, are more and more tending to become a part of the province of the general surgeon, whose special skill makes it easy for him to learn new manipulations, and to acquire the needed dexterity. And so in the surgical services of our hospitals we may be present at a clinic in which the operator will prove to be equally competent in the various fields of gynecology, genito-urinary, and rectal work, and the treatment of nearly all surgical conditions and diseases. While a few men may have looked upon this as an encroachment upon what they had been led to consider as being territories of their own, it cannot be doubted that it not only is a beneficial growth, but that it is also one whose increase is inexorable and will never be stayed. That many, however, will always pause when confronted with the enormity of the region laid bare before them, is unquestionable. They will limit their studies to certain portions of the field, and there will, as long as our art endures, be men who will achieve special distinction along certain lines. But as the general knowledge increases it will become more difficult to acquire a well founded reputation as a specialist, and the work accomplished will hence become of a higher order. That this is an end devoutly to be hoped for is becoming more and more clearly apparent every day. Anesthesia and asepsis have so robbed of terrors the work of surgeons that there are many who step in where angels fear to tread, and, in the forcible words of Dr. Wm. M. Polk (*Medical News*, Feb. 1st, 1902): "The curse of our profession to-day is the half-baked, underdone specialist, and this country is full of them." The surgical specialist of to-day must begin as a general surgeon, and rise to specialism in virtue of peculiar aptitude for and

interest in some branch of his work. The general practitioner must be better instructed in surgery, because he usually is the arbiter who decides whether the surgeon shall be called in; but the surgeon himself must be worthy of the honor conferred upon him, and it is only by strenuous work and special training that he can fit himself to fill properly his place.—*International Journal of Surgery*.

Insurance Company's Medical Examiner Cannot be Agent of Person Insured.

In an action by Mrs. George Sternaman against the Metropolitan Insurance Company, to recover on a policy on the life of her husband, the question to be determined by the New York Court of appeals was whether, when an applicant for life insurance makes truthful answers to all questions asked by the medical examiner, who fails to record them as given, and omits an important part, stating that it is unimportant, the beneficiary could show the answers actually given, in order to defeat a forfeiture claimed by the company on account of the falsity of the answers as recorded. It was agreed in Mr. Sternaman's application that the medical examiner, who was employed and paid by the company, should not be its agent, but solely the agent of the insured. The court, in reversing the Fourth Appellate Division of the Supreme Court, holds that while the parties to the policy could agree that the person who filled out that part of the application to be signed by the insured was the latter's agent, they could not agree in this manner in regard to the blank to be used by the medical examiner. The medical examiner of an insurance company is the agent of the company, and not of the applicant. The knowledge he acquires, his interpretation of the answers given, and his errors in recording them are the knowledge, interpretation and errors of the company itself. The company is, therefore, estopped from taking advantage of what it thus knows and what it thus does, when it issues a policy and takes the premium. After stating that the power to contract is not unlimited, Judge Vann, speaking for the court, says: "Parties cannot make a binding contract in violation of law or of public policy. They cannot in the same instrument agree that a thing exists and that it does not exist, or provide that one is the agent of the other, and at the same time, and with reference to the same subject, that there is no relation of agency between them. . . . They cannot by agreement change the laws of nature or of logic, or create relations, physical, legal or moral, which cannot be created. In other words, they cannot accomplish the impossible by contract." Chief Judge Parker and Judge Gray dissented.—*Boston Medical and Surgical Journal*.

Taste or Test.

A well-known Brooklyn physician of Spanish extraction has not yet mastered the intricacies of the pronunciation of the English language. Some time ago the doctor had occasion to send a specimen of urine for chemical examination to a druggist who attends to this work for the physician. A servant was dispatched with instructions that the druggist should "taste" it. The fluid was in an ordinary wine bottle, and the German druggist eagerly swallowed a good-sized draught, and immediately declared it to be the worst wine he had ever had the misfortune to sample. When the doctor informed him that it was a specimen to "test" chemically, the druggist was enlightened but not satisfied.—*Med. Record*.

Glass Vaccine Points—A New and Original Idea.

One of the most interesting developments in vaccine points is undoubtedly that recently placed upon the market by the H. K. Mulford Co., of a flint glass point, similar in size and shape to that of the ivory point. Every propagator of vaccine, as well as user, has recognized the limitations of the ivory or bone point, inasmuch as it could not be properly sterilized either by dry heating, which chars it, or by the use of antiseptic solution of powder, which would be absorbed in the bone and destroy the vaccine virus itself, and for this reason experiments have been carried on covering a period of years, to secure a proper substitute in glass which, from the start has been recognized as the ideal, if it could be properly produced. Mulford Company have succeeded in doing this, they have under their management a large and completely equipped glass plant on their vaccine farms at Glenolden, for the manufacture of such glassware as they use in connection with antitoxin and vaccine. It is the only glass plant in the world that employs exclusively women.

The glass point permits of thorough scarification, it is easily and thoroughly sterilized, and is supplied by the H. K. Mulford Co., either in form of dry points, or what is superior to these dry points, the glycerinized form of vaccine; this is the same vaccine employed in the glycerinized tubes, and is thoroughly tested and free from pathogenic organisms. The glass point is first sterilized, then tipped with glycerinized vaccine, which has been carefully tested bacteriologically and physiologically to prove its activity and purity, after that it is encased in sterile glass capsule, which is then hermetically sealed, thus permitting handling of the point without any possible contamination, and it is in point of fact, the ideal form of vaccine, representing the purest and most active.

There is no advanced charge made for the glass glycerinized points, and we endorse them as being the most advanced step forward in the marketing of a pure and aseptic vaccine.

No Restrictions Placed on Lepers in New York.

In the report of the Leprosy Commission of the Marine Hospital Service, sent to the United States Senate by the Secretary of the Treasury on March 24th, it is stated that out of 278 cases of the disease now in this country, seven are in the city of New York, four in Brooklyn and three in Manhattan. While formerly lepers found in New York were isolated, at present no restrictions are placed upon them, as it is held by the health authorities that in this climate the disease has no contagious element.—*Boston Medical and Surgical Journal*.

The Open-Air Treatment of Tuberculosis.

Since the meeting of the British Congress on Tuberculosis there has been a general exploiting of the necessity of open-air treatment in this disease. It bids fair to become a fad, and as such to be prescribed in an indiscriminate fashion, which will sooner or later bring a valuable means of treating tuberculosis into undeserved discredit.

A few articles have appeared which have shown an understanding of the basic principles in the treatment of this disease and in the application of the open-air method to the indications. Others manifest overweening confidence in the method, thinking all that is necessary is to turn patients into the open air to have them get well.

One is reminded of the general discussion upon the cold-bath method of treating typhoid fever. Exploited as it was as a cure-all in this disease, and from being indiscriminately employed, it is now used with some definite idea of its limitations and some individualizing of the treatment. Even with a treatment so near a specific as quinine in malarial fever, it is still necessary to prescribe it with judgment in reference to its absorption, and with a dosage based upon individual indications.

In the open air treatment of tuberculosis, it is not sufficient that a patient be turned out-of-doors to live in a tent in order to have him recover. Indeed, tent life may be even more objectionable than living within doors, as ventilation of a tent in the cold season when the openings must be closed and the interior heated with a stove may be much poorer than in the average house. Much can be done in the home open-air treatment of tuberculosis, particularly in the rural districts and smaller towns. Most houses can be provided with a balcony or other suitable shelter which admits of the details being carried out with some degree of persistence. For the town dweller, the open-air treatment to be efficiently applied must be in a sanitarium or in a camp especially prepared for tuberculosis patients. The treatment must be under medical supervision and must be individualized.

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ADDRESS OF THE PRESIDENT OF THE ONTARIO MEDICAL ASSOCIATION.

AT THE ANNUAL MEETING HELD IN TORONTO, JUNE 4TH AND 5TH, 1902.

BY DR. NEWTON A. POWELL.

GENTLEMEN,—To utter words of kindly greeting is always a grateful task, and to-day it becomes my pleasant duty to welcome you to the twenty-second annual meeting of the Ontario Medical Association. To all of you—to our guests, to old friends, and to those who are with us for the first time—I offer a greeting which is none the less sincere because it happens to be official.

The Ontario Medical Association may be fairly taken as representative of what is best and most progressive in the profession of this Province. This being so, I would be an ingrate indeed if I did not, first, before all else, thank you for the evidence of good-will shown in your having bestowed upon me for this year the office of President. Being deeply sensible of this kindness, the selection of a topic to which I might with advantage invite your attention, has weighed heavily upon me. If one could have been found, the intrinsic interest of which would more than have atoned for my own imperfect presentation of it, then indeed I should have felt a measure of contentment. I can claim no marked success in the quest for a subject such as this, but a number of topics seem to have sufficient interest to justify their discussion in your presence. The first of these has to do with the bearing of recent and of pending legislation, Dominion or Provincial, upon the welfare, the rights and the prospects of Ontario physicians. Before entering upon any consideration of these matters, it is just as

well that we should put aside the modesty with which we have for a long time been tongue-tied and claim boldly that in regard to the regulating of the study and practice of medicine by legislation, this province has been and still is in advance of any other province or state on this continent. More than this, our methods of conducting examinations by a Board representing all the interests concerned, and having the sole power to confer licenses for practice, while it has served as a model for the organization of many State Boards, is still better than any other. Our examinations have been and are more exacting and searching, and our standards are higher than those of any other state or province. The influence for good which has thus been exerted cannot easily be computed. It is quite true that upon paper examinations have been set which would appear to present greater difficulties for students, but the percentage required for a pass and the proportion of candidates rejected have uniformly been lower than has obtained with us. Numberless students who, after being graduated here, have passed some one or more of the better class of State examinations in the United States, or have taken degrees in our own mother country, testify to this fact. Their uniform report is that our examinations present greater difficulties than any other. The net result of the operation of the Ontario Medical Act of 1869 and of amendments thereto has been that there is to-day in this province a profession of which we can justly feel proud, and that scattered over the world are countless progressive and successful physicians who, having been trained here, owe no small measure of their success to the fact that for more than thirty years the medical colleges of this province have had to teach up to the requirements of a rigid State examination. We are proud of this record as a record, but what has been done is of importance mainly as indicating what better results may still be attained. Where we stand on any question or what we have done, is of less importance than the direction in which we are moving. We are facing a wonderful to-morrow! The measureless growth of the medical sciences within recent years imposes upon us grave responsibility for the future, and we cannot afford to "mark time" while other and even less favored states or provinces are progressing.

Claiming all that I have for the Ontario Medical Act, and for its influence upon the profession here, I am far from claiming that it is incapable of improvement, or that its provisions have always been wisely and judiciously administered. A long series of indictments could be laid against successive medical councils. If I were to undertake even an enumeration of the mistakes, the short-comings and the follies of these bodies, I

should have no time to discuss them. It is the part of wisdom to learn from the mistakes of others, and recognizing such mistakes, let us try for the future rather to avoid and correct them than to waste time in harping upon them. During the past winter a bill to amend the Ontario Medical Act was introduced into our Provincial Legislature by Dr. Jessop. In brief, this bill asked that the Medical Council should be composed entirely of the territorial representatives and that the universities, the medical colleges and the homeopathic faction should no longer have direct representation. Although without mandate from you upon the matter, I felt called upon to oppose this bill for reasons with most of which I need not trouble you just now.

Admitting, for the sake of argument that the homœopathies are over-represented, we still must remember that when our Act was passed, a direct bargain was made with these gentlemen, and that it should be carried out in good faith till ehanged by mutual agreement. Those who trade on the name of Hahnemann, or who, at a greater or less distance, follow his vagaries, are diminishing in number and in influence, and for us to drive them into making application for separate incorporation, and into the position of an oppressed minority, would be foolish in the extreme. As to the right of representation of the universities, actually engaged in the educational work of the country, and of the medical colleges, there can be no question. It does seem to me, however, that the members of the Medical Council who represent charters in abeyance, or universities having no direct interest in medical education, should no longer have the right to appear at the Council meetings, and that our Act should be amended so as to reduce the membership and expense to this extent.

Dr. Jessop's bill was thrown out with, I believe, a strong feeling on the part of the House Committee which dealt with it, that some such provision as this should become operative in the near future.

A measure of much greater importance to us is the one promoted in the Dominion House by Dr. Roddick, and providing for inter-Provincial registration. This measure has passed the House, been amended in the Senate and received vice-regal sanction. Members of this Association will recall the fact that Dr. Roddick strongly advocated his bill from this platform two years ago. They may not as easily recall the fact that I objected to the measure as being manifestly and disastrously unfair to Ontario. As then put forward the bill gave as large a presentation to Prince Edward Island, to Alberta and to other provinces with a few score of practitioners as to this province, with over 3,000 registered practitioners.

I am glad to say that the protest we raised was effectual, and that the Bill was redrawn with the representation arranged upon a more equitable basis.

An examination of the bill as it finally passed the Senate leads me to fear that it has been emasculated, and is now potent neither for good nor harm. I may be wrong in this estimate, and since the main object of the bill is such a desirable one, I should be glad to find myself mistaken. What we in Ontario must guard with zealous care is the standard which we now have. There must be no levelling down to meet the needs of schools in any other part of the Dominion. Pledges will not suffice, we must have the power to prevent its being done, and if we have such power and use it, I am exceedingly doubtful if we shall ever see the Act in operation.

During the session of the House of Commons just closed, the Canada Evidence Act of 1893 was amended so as to limit to five the number of expert witnesses who may be called on either side, in civil or in criminal cases when the consent of the judge for the calling of a larger number has not been asked for and obtained, before beginning the examination of the first witness to give opinion evidence. This, in my judgment, is a sensible enactment, tending to lessen but not competent to remove certain abuses which His Honor Judge Maclougall may touch upon in his address before you to-night. It will have some tendency to lessen the advantage which always goes with a long purse in litigation, but it appears to run counter to the statement which we have from the very highest of authorities that "in the multitude of counsellors there is safety."

The development and extension of cottage hospitals in very many of the cities and larger towns of Ontario, is a movement in the right direction and a natural outcome of the more complete and practical training which our students are now receiving. It has greatly increased the number of positions as house surgeon, now available, and these positions become year by year a more important factor in medical education. The status of the hospital interne in Ontario is a live subject, and in order that it may be studied from a view-point new to most of us, I have asked a gentleman who is still a hospital resident, and who is filling his position with advantage to his hospital and credit to himself, to read a paper on the subject at this meeting. I hope that he will take up the appointment of graduates in medicine, who, on account of our fifth or so-called clinical year, are still without the license to practice, that he will discuss the relation of these gentlemen to the administration of anesthetics, and most important of all that he will consider the advisability of the appointment of a certain proportion of the house surgeons of our larger institutions every six

months, with a graded service of eighteen months, instead of our present unsatisfactory plan of appointing all together once a year and for one year only. In recent visits to some of the surgical centres of the neighboring Republic, I was impressed by the fact that no surgeon whom I saw at work was doing better operative surgery than is being done here from day to day, but that the assistance given and the "team" work, if I may borrow a term from the campus, was far and away better than anything we see here. We have as good or better men to select from, but the present plans of appointment and terms of service do not give them half the chance they should have. Beside that, every operator is handicapped by having as his chief assistants men who have just been appointed, and by losing them when they are becoming trustworthy and helpful. A graded course with responsibility increased as experience is gained, and with the men who are lazy or inefficient weeded out at the end of the first six months, would be better for the residents themselves, infinitely safer for the patients and would help the surgeons who are operating to obtain the results they individually strive for. The first six months of such service would naturally be spent in performing the less responsible duties of the position, and during this time, in my opinion, the administration of anesthetics should be placed in other hands.

In another respect we appear to be falling behind the procession. While here in Toronto as I know, and in Kingston and London as I fully believe, excellent teaching is given to undergraduates in medicine, we have so far failed to make adequate provision for post-graduate instructions. As a consequence, gentlemen desiring review courses have been going in large numbers to Manhattan Island and to certain large towns in Pennsylvania, Maryland and Illinois. We have the men, the hospitals and the material to meet all needs, but they are not utilized as they might be. In the past professional jealousy was so keen and controversy so bitter that success would have been hardly a possibility. Now *laus deo* we know each other better, and out of mutual respect can come united and successful action. True, we are given to criticizing each other a good deal, but with rare exception, this is in the spirit of rivals rather than of antagonists. Old animosities are dying out and are not being replaced.

"The teeming future
Glorious with visions of a full success"

holds for us a grand, united and splendidly equipped school of medicine doing for the students of a coming time what in an imperfect and patchy way we are striving to accomplish now.

I have faith in that future, and in the men who shall sway

its destinies and believe that with absolute fairness to all real interests the wisest course can be found and followed.

The Reaper whose name is death has not been idle in the year that has passed since we last met. Your committee on Necrology will present the names of certain of our members who rest from their labors and whose memories we honor. Permit me to refer to two only of the number: Dr. John Coventry was President of this Association in 1899, and well and worthily did he perform the duties of his office. He died from the disease which cuts off, in the midst of their greatest usefulness, so large a number of physicians—from an acute pneumonia. Leslie M. Sweetnam, in the full tide of professional success and with an ever-widening circle of patients and of friends who appreciated his sterling worth, and who loved him for what he was as well as for what he did, fell a victim to blood poisoning received in operation,—I had almost said to a wound received in action.

In one of the songs which Homer chanted when the world was young, we hear Idomeneus crying to Nestor:

“Worth many a life is his
The skillful leech who knows with practiced hand
To extract the shaft and healing drugs apply.”

If this was true when men were wild and when human resources were few, how shall we estimate the value to the communities in which they practice, of wise and prudent physicians, honest to their own consciences and armed with all the aids which advancing science has placed in their hands. Looking further afield, we have to regret the death of a man who, with the possible exception of the elder Gross, did more for the development of surgical pathology, than any other surgeon in the new world. Christian Fenger was your guest three years ago, and those who met him only at that time will join with all who knew him more intimately in the belief that he has made a lasting impression upon surgical science. Recalling the fact that surgical pathology has progressed more rapidly than any other department of medicine—that, as has been truthfully stated, it has made more progress in the last thirty years than in the previous thirty centuries, we can appreciate the splendid work which this great investigator and teacher was able to crowd into thirty-five years of professional life. His work and the work of others like him will live. Their best knowledge will continue to be utilized for the benefit of mankind.

“Were a star quenched on high,
For ages would its light
Still travelling downward from the sky,
Shine on our mortal sight.

“So when a good man dies
For years beyond our ken,
The light he leaves behind him lies
Upon the paths of men.”

The interest you have always shown in the Ontario Medical Library and the financial aid you have from year to year given towards the upbuilding of a working library for all the physicians of this province, leads me to mention that after the death of Dr. L. M. Sweetnam, his friend and our friend, Dr. Howard A. Kelly, of Baltimore, authorized me to select from Dr. Sweetnam's extensive library every book not already in the Ontario Medical Library, and these, to the number of about three hundred, he purchased and presented to us. He did this in order that the collection should be kept together and should form in some degree a memorial library. Dr. Kelly's action was a pleasant surprise to many who did not know him; all who have the pleasure of knowing him intimately recognized it as just another large-hearted, generous act such as he is continually doing. Dr. Osler's establishment of the Bovell Memorial Library in honor of an old teacher of his, was along the same line and may have prompted the later gift. I am glad to be able to tell you that through the generosity of the President of the Library Association, Dr. J. F. W. Ross, a catalogue of the principal works now upon our shelves is being printed and copies will shortly be sent to members of this Association. They will then be enabled to see what an extensive library has been accumulated and should remember that these books are at all times available to them without expense.

The continued presence of smallpox in Ontario, the large number of reported cases and their wide distribution are causes of regret, of alarm and of humiliation. Of regret on account of the loss of life, the direct expense and the indirect interruption of bread-winning involved; of alarm because the end of the outbreak does not seem to be as yet in sight and of humiliation because we appear to have taught the public less faithfully than our fathers did, the demonstrated fact that this disease can be controlled, and in times of epidemic can only be controlled by vaccination and revaccination. Two of the factors which increase the difficulty of stamping out smallpox undoubtedly are humbug vaccination, and a failure to make the differential diagnosis between this disease and chicken-pox. In regard to the first, let me cite the case of a girl exposed to so-called chicken-pox occurring in a man who had come here

from Cleveland. This man lied to his physician about his symptoms. I cannot use Browning's euphonism and say, "He fell from truth in climbing toward it." He knew that he had been exposed to smallpox, and that he had the symptoms of that disease, but to avoid being placed in quarantine he lied, and as a result his physician took smallpox and died from it. The girl referred to and one other member of a large family had certificates of vaccination, but no scars, and both took the disease. Both had been "vaccinated" by a physician who did not believe in Jenner's discovery, and who had used the uncharged ends of ivory points in performing the operation. Justice fails when a man who spreads smallpox is not made to atone, so far as he can, for his offence by serving a long term in the penitentiary. May I here raise the question of the necessity for a standard certificate of vaccination, stating the result obtained in each case, and may I in this connection also ask if the time has not arrived for placing chicken-pox on the list of diseases which must be reported to our medical health officers?

It is a matter for mutual gratulation that we have now available in our gloriously health-giving Muskoka region a hospital for the free treatment of fifty patients with incipient phthisis. If my own connection with this and with its sister institution, the Muskoka Cottage Sanatorium had been less intimate, I might have been tempted to say more regarding them. Old men are said to talk of what they have done, children of what they are doing, and fools of what they are going to do. As I am no longer a child, have not as yet begun to grow old, and cannot believe you would have placed one of the third class in the chief office of this Association, I am precluded from entering into any detailed statement at present. Instead, let me be content with extending, on behalf of the Board of Trustees of the National Sanatorium Association, and of my associates of its medical staff, a cordial invitation to each one of you to visit Gravenhurst at your earliest convenience, and to see for yourselves just what is being done. Let me assure you that the "latch-strings" there always hang outside for the members of this Association.

Perhaps from a professional standpoint the most regrettable incident of the year was the simultaneous publication in all of the Toronto daily papers of advertisements of the so-called "Ramage process" for the cure of phthisis as "demonstrated" at a private hospital here. The hospital in question is conducted by two of the members of this Association, and the advertisements to which I refer appear to set at defiance the code of ethics which we have adopted, and by which we profess to be governed. I would willingly have passed over, in silence

and in sorrow, these publications if it were not for the conviction that by so doing I would have shown a cowardly dereliction of duty. The medical men to whom I have referred are engaged in active practice, and are reputed to be wealthy. By their direct connection with flagrant advertisements of this character, they appear to have established a *prima facie* case against themselves. If they are right in what they have done and are doing, they should be given an opportunity of proving it and of removing the stigma that now rests upon them. The matter is one for consideration by our Committee of Ethics, and to this body I now officially transfer it, in the full belief that it will be dealt with fairly, courageously, and in a spirit of professional self-respect.

Before closing, it is only right that I should express my deep sense of obligation to the gentlemen who have labored so earnestly to make this meeting a success. In a time of political excitement like this I may refer to them as my cabinet, Dr. Parsons being Secretary of State; Dr. Fotheringham, Minister of Education; Dr. J. M. Cotton, Minister of Public Works, and Dr. A. R. Gordon, Provincial Treasurer. How efficiently they have labored will never be known because they are far too modest to speak of it themselves, and I much too prudent to let the real facts escape lest I should lose all credit for the results attained.

I am sure, gentlemen, that we have all watched with keenest interest the movements of the armies of our empire which in Southern Africa have been making history. We have felt an honest pride in the bravery and fighting skill of the thousands who have gone from Canada to aid the mother land. Only a few days ago we were thrilled with the story of how Canadian surgeons at Hart's River for a whole day long and under a withering fire of shot and shell went on with the work of caring for the wounded. While we unite in profoundest thankfulness to Almighty God that the end of this bitter struggle has come, we exult in the part taken by our own country in conquering a peace. We have fought a good fight! we have kept the faith! What has been gained?

“Do you not see your Greater Britain's soul

Has come to birth?

Do you not hear above the sighs—the song

From all those outland hearts which peace kept dumb;

There is no fight too fierce, no trail too long

When love cries ‘Come.’”

WHY SHOULD WE NOT TREAT THE GALL-BLADDER AS WE DO THE APPENDIX?*

BY ROSWELL PARK, BUFFALO, N. Y.

The object of the present paper is to invite attention to the resemblances in function between the gall-bladder and the appendix, as well as the similarities between many of the pathological conditions which I would wish to have you interpret as calling equally for radical removal of the organ in question, whichever it may be.

First of all there are resemblances in function and structure between two appendages. Both of them are hollow receptacles, both are more or less tubular in shape and arrangement, both normally contain a certain amount of secretion, and most important of all, both are essentially superfluous organs, neither of them being necessary for normal purposes of life. The gall-bladder is a reservoir lined with mucosa continuous with that of the intestine. The vermiform appendix is scarcely even to be dignified with the importance of a reservoir, is lined with the same mucosa, and whatever its function may have been it is now almost useless. So long as each of these cavities can discharge itself easily there is little likelihood of trouble. It is when occlusion, no matter whether recurring or permanent, occurs, that trouble begins. This occlusion is produced in either case by analogous processes, in which bacterial infection plays a prominent part. Both cavities contain secretion from which calcareous deposits may be precipitated; in other words, in both is there liability to formation of concretions. The amount of pain and disturbances which may be produced by these small stones is, of course, well known to you, and is entirely disproportionate to their size and apparent significance.

Much attention has of late been paid to the toxemia or stercoremia which follows retention of appendicular contents. There is a less general appreciation of a perfectly analogous toxemia which comes from retention of morbid products within the gall-bladder, although I doubt if any man can reflect upon these cases intelligently without recognizing that which has previously escaped his notice. I have had such frequent occasion to be amazed at the degree of toxemia which may be produced under these circumstances that I wonder that they did not appeal to me in this regard many years ago as they do now.

Further resemblances are seen in that each may become anchored to its surroundings by a variety of intrinsic or

* Read at the meeting of the Ontario Medical Association held in Toronto, June 4th and 5th.

extrinsic lesions, and each when so anchored produces a degree of tenderness, of pain and of disturbance of function which is not always to be measured by the mere density or number of such adhesions. Each in its place, moreover, may lead to coprostasis by interference with the motility of the colon. Each again may cause localized pain and tenderness with acute exacerbations which are a constant menace to the welfare of the individual. Sometimes this tenderness is very easily evoked, and other times it takes deep pressure to call forth the response. Sometimes the enlarged organ can be felt through the abdominal wall and sometimes it cannot. Still, in either case we may fall back on the general expression of tenderness as a safe sign of disease in the part below.

Just as the appendix, when compromised, disturbs the function of the cecum, so does the gall-bladder when involved, especially and often disturb the normal action of the stomach and of the pancreas, and numerous cases of pain, tenderness and associated dyspeptic symptoms, referred primarily to the stomach, are in effect the result of a compromised gall-bladder. Moreover, just as trouble may radiate from the appendix proper and disturb the function of the ovary, or even of the bladder, so may lesions of the gall-bladder completely upset the stomach and produce such symptoms as to be mistaken for gastritis or gastric ulcer.

This incomplete list of resemblances might be well supplemented by a further statement that in either case when the part is diseased it is a constant source of irritation, and even a menace to life itself.

Assuming then that the organs themselves and their disease so completely resemble each other, you will be quite ready for the important surgical question, "Why should we not treat them both alike?" Replying to this self-raised question, I would further say that such is not my custom and my teaching. Whether, then, the case be acute and fulminating, or chronic and growling, I would say that the diseased and troublesome gall-bladder, like the diseased and troublesome appendix, should come out, and that we should now formally include cholecystectomy as the ideal operation corresponding to appendicectomy. My past year's experience with a relatively large number of these cases has taught me that one is no more dangerous than the other, and is equally satisfactory. I now scarcely think of leaving an evidently diseased gall-bladder after exposing it any more than I would think of partial operations upon the appendix. It is in almost all cases a not difficult matter to throw a ligature around the cystic duct near its entrance into the common duct, and to extirpate the gall-bladder from the lower edge of the liver, tying off vascular

adhesions, and if necessary, opening the cyst for the purpose of emptying it in order to make this extirpation more easy. In fact, I sometimes not only open it but widely, in order that with one or more fingers in the inside I may expedite its separation from the liver or adjoining viscera. This method is now demonstrated to be vastly preferable to the old method of opening and drainage, with too frequent and almost permanent sinuses which remain thereafter.

It is fair to maintain that when the gall-bladder is occluded and contains calculi with old, more or less inspissated or altered mucus, it has ceased to functionate as a gall-bladder, and is more than useless, is a source of offence.

When it is thus removed it can no longer furnish calculi which shall cause trouble within the ducts, or which shall provoke or irritate the pancreas.

I would repeat again that it is astonishing what a degree of toxemia can proceed from the contents of an old and occluded gall-bladder. On the other hand acute gangrenous affections of the gall-bladder are much less common than those of the appendix, all of which is due largely to the variations in their blood supply and anatomical arrangement, nevertheless, even in acute cases of cholecystitis there are exceedingly strong and unmistakable resemblances to acute appendicitis.

So far as the danger of the operation is concerned, I have come to believe that operation on one is scarcely more risky than upon the other, and that there are the same reasons for prompt and early intervention in one case which we meet with in the other. Looking back upon my own experience, I am perfectly willing to record my regret that convictions to the above effect have not overcome my prejudices years ago. I have never regretted removing a gall-bladder and have more than once had cause to regret not doing so. It has now become with me as standard a procedure as removal of the appendix, and seems to me one to be practised with much greater frequency, and to be recommended in a large proportion of cases which have hitherto restrained from putting themselves under surgical management.

ROENTGEN RAYS IN RELATION TO CANCER.

By A. GROVES, M.D.,

Superintendent Royal Alexandra Hospital, Fergus, Ont.

Mrs. W. S., age 59 years, was admitted to the hospital on January 31st, complaining of vaginal discharge and falling of womb. Personal history was good, usual diseases of childhood. Had been married thirty years, giving birth to ten children. Present illness commenced about two years ago, the symptoms of which were "a dragging down sensation, accompanied by profuse discharge, with pain in top of head." Had been gradually losing strength, characteristic cachexia also present. A vaginal examination showed a large ulcerated surface with very fetid discharge, hemorrhage occurring when parts were touched. A diagnosis of epithelioma of os uteri was made, and it was decided to try the effect of Roentgen rays, the case being beyond operative interference. Treatment was commenced, lasting on an average fifteen minutes per diem, and on the fourteenth day there was no apparent result excepting a partial relief of pain, but after this, the odor decreased with lessened discharge, and the ulcerated surface showed healthy signs, granulation occurring, and, on the thirtieth day from the commencement of the treatment, there was only a very small surface not completely healed, no odor, discharge or hemorrhage, and complete absence from pain. Patient then left the hospital, and ten days afterwards I examined her and found the remaining surface had healed and her general health improved in every way. Two months afterwards I found her in perfect health, with absolutely no return of symptoms. I think this may be confidently claimed as a cure.

Mrs. E. McD., aged 55 years, married, admitted to hospital on May 14th, with diagnosis of cancer. Examination showed that whole of lower third of rectum was involved, also the posterior wall of vagina, so much so that both organs opened as one. The disease had started five years ago, but up to time of admission had never been properly examined, receiving no treatment except medication. Treatment by Roentgen rays started, and on the night of the fourth treatment the patient slept for eight hours which, when compared with the history of the preceding seven months, the average sleep for which being one and a half hours per night, was very encouraging. She left the hospital on the 18th, temporarily, and I have no doubt that on her return a complete cure can be made.

TOWN VS. ARCHER AND ARCHER

IN THE HIGH COURT OF JUSTICE. TRIED AT TORONTO NON-JURY SITTINGS

Town r. D. Archer and R. Archer. N. F. PATERSON, K.C., and SHARPE for Plaintiff
AYLESWORTH, K.C., J. H. MOSS and W. H. HARRIS for Defendants.

JUDGMENT DELIVERED BY HON. CHIEF JUSTICE FALCONBRIDGE.

This is an action brought by the plaintiff, who is the wife of a farmer residing in the County of Ontario, against the defendants, who are physicians and surgeons residing and practising in partnership at the Village of Port Perry, in the same county.

In the month of May, 1899, the plaintiff fell and sustained injuries in her left ankle and foot, and the defendants were retained as surgeons, for reward in that behalf, for the purpose of treating the plaintiff for such injuries.

The plaintiff charges that the defendants negligently, improperly and unskilfully treated the plaintiff for such injuries: in consequence whereof the plaintiff has been suffering, and still suffers pain, and her foot has become distorted and twisted so that she has been rendered permanently lame, and her health has become otherwise impaired thereby.

The defendants plead, in their statement of defence, that they are both duly registered members of the College of Physicians and Surgeons of Ontario. That the defendants were not retained to treat the plaintiff, as alleged, but that defendant D. Archer was called in after the accident to the plaintiff, as a surgeon to set the plaintiff's ankle, and with the assistance of another surgeon did set the same in a proper and skilful manner, and that said defendant D. Archer was thereupon discharged by the plaintiff from any further attendance in the case. They also plead that the injury complained of by plaintiff was not caused by any negligence of the defendants, or either of them, but is due solely to the negligent manner in which the plaintiff's injuries were treated by herself subsequently to the treatment of her ankle by the defendant D. Archer. And the defendants further set up as a defence that the plaintiff's ankle was set by defendant D. Archer more than a year before the commencement of this action, and that the plaintiff's claim, if any, is barred by R. S. O., Chap 176, sec. 41.

The case was tried before me on the 18th, 19th, 20th and 21st of February last, and argued on the 27th of the same month. I have deferred judgment until now, not because I had any doubt as to what the disposition of the issues ought to be, but because the importance of the case to the medical profession, and to the community at large, seem to require that I should make a more formal and deliberate deliverance of my opinion than would be conveyed by an off-hand judgment pronounced at the trial.

The condition of the plaintiff, who is a woman of sixty years of age, at the time of the trial, is fully set out in the report of the surgeon appointed by order of the Court to make a physical examination. It is as follows;

“Report of Physical Examination of Mrs. Narcissa A. Town, of Saintfield, Ont.:

“She states that she sustained an injury of the left ankle on May 17th, 1899. Examination by order of the Court September 28th, 1901. Condition on examination:

“Length of tibia, same on both sides.

“Length of fibula, same on both sides.

“Circumference of the left leg, one inch less in calf than that of right.

“Circumference above knee, equal.

“The distance from the external malleolus to the ground is increased, and that from the internal to the ground slightly diminished. This causes the foot to be turned inwards, so that in the erect position the left side of the sole of the foot reaches the ground, while the inner side is raised about an inch. This is more marked at the toe than at the heel.

“There is a marked prominence of bony character in front and to the outer side of the ankle-joint. This is clearly the head of the astragalus. The body of the astragalus can be felt distinctly behind this, somewhat in front, and to the outer side of its normal position.

“The patient complains of pain on pressure over this part, and also at the inner side of the foot below the malleolus (ankle).

“There is but little thickening of the soft parts.

“No other injuries are present.

“Conclusions:

“(1) There has been, and still is, a dislocation of the astragalus, forwards and outwards.

“(2) There is no sign at present of there ever having been fracture either of the tibia or fibula.

“(3) Result: The pain will, perhaps, become less on using the foot, and the displaced parts will gradually become accustomed to their altered relations, but the deformity resulting from the dislocation will be permanent.

“(Sgd.)

“GEORGE A. PETERS, M.B., F.R.C.S., ENG.”

The question, then, for trial is whether the condition of the plaintiff to-day is due to the want of care and skill of the defendants; or (2) whether the plaintiff's own want of care has resulted in the injury, or whether she has by her own conduct

aggravated her injuries; or (3) whether her present condition is a result which might reasonably be looked for, and which has come to pass, having regard to her age and to the nature of the injury, even with the best degree of care and skill of a medical attendant, and the best degree of care and obedience to the doctor's orders on the part of the patient and of those in attendance on her in her own household.

Although I consider it due to all the parties concerned, to pass upon the merits of the case, yet I am bound to give an opinion upon the defence which has been raised under the Statute of the limitation of the action by reason of the lapse of time. The Statute R. S. O., Chap. 176 (The Ontario Medical Act, section 41), is as follows: "No duly registered member of the College of Physicians and Surgeons of Ontario shall be liable to any action for negligence or malpractice by reason of professional services requested or rendered, unless such action be commenced within one year from the date when, in the matter complained of, such professional services terminated."

The writ herein was issued on the 21st day of December, 1900. If, therefore, the defendants' professional services continued up to the 21st day of December, 1899, the Statute is not a good defence. The defendants contend that their professional services terminated with the visit of the 12th June, 1899, and that any visits paid by them after that date were friendly visits and not professional ones. Plaintiff contends that she called, as a patient, on defendants at their office on the 21st December, 1899, and on the 11th January, 1900; and that the defendants' professional services did not terminate until the last-mentioned date. There is a conflict of testimony between the plaintiff and defendants as to the real date of the last visit but one; the defendants contending that it was not on the 21st December, but on the 21st November, and backing up their statement by evidence of their different professional engagements and journeys on that day, and on the day preceding. However that may be, I am decidedly of opinion that when the plaintiff went to see the defendants on the last two occasions she did not go as continuing the relation of patient and medical man, but as a person who had a grievance and who was dealing with the defendants more or less at arm's length. She had called in another doctor (Parke, of Saintfield) to look at the foot on the 13th December, 1899; and she consulted a solicitor during the same month. Consulting another surgeon, in the absence of, and without notice to or leave of the surgeon in charge, is an indication of want of confidence in the latter, and would of course be treated by him, when he came to know of it, as tantamount to a dismissal of him by the patient. I am clearly, therefore, of the opinion that the

defendants can claim the benefit of the Statute, and that on this ground alone the action fails. But, as I said before, I deem it incumbent upon me to dispose of the other issues in the case.

The defendants are practising in partnership, but David Archer was the partner who was in charge of the case, and it is his alleged negligence which is in question here. But where physicians or surgeons engage in practice as partners all are liable for malpractice by any member of the firm.

Malpractice (*mala praxis*) is bad or unskilful practice by a physician or surgeon, whereby the health of the patient is injured. Negligent malpractice means gross negligence and lack of the attention which the situation of the patient requires; as if a physician while in a state of intoxication should administer improper medicines: that is not charged here, but what is charged is ignorant malpractice, namely, a course of treatment which was calculated to do injury, which has done harm, and which a well-educated and scientific surgeon ought to know was not proper in the case.

In 1697 the Court of King's Bench (Temp. Chief Justice Holt) resolved in Doctor Groenvelt's case, which Lord Raymond reports at page 214 in the quaint language of the day, "That *mala praxis* is a great misdemeanour and offence at common law (whether it be for curiosity and experiment or by neglect), because it breaks the trust which the party has placed in the physician, tending directly to his destruction."

The burthen of proof is upon the plaintiff in an action of this character, to show that there was a want of due care, skill and diligence on the part of the defendant, and also that the injury was the result of such want of care, skill and diligence. The general rule of skill required of a medical practitioner was thus ably summed up by Chief Justice Erle, in *Rich v. Pierpont*, 1862, 3 F. & F., at page 40: "A medical man was certainly not answerable merely because some other practitioner might possibly have shown greater skill and knowledge: but he was bound to have that degree of skill which could not be defined but which in the opinion of the jury was a competent degree of skill and knowledge. What that was the jury were to judge."

"It was not enough to make the defendant liable, that some medical men of far greater experience or ability might have used a greater degree of skill, nor that even he might possibly have used some greater degree of care. The question was, whether there had been a want of competent care and skill to such an extent as to lead to the bad result."

Chief Justice Tindal, in *Lamphier v. Phipos*, 1838, 8 C. & P., at page 479, charged the jury in the following clear and suc-

cinct terms: "What you will have to say is this, whether you are satisfied that the injury sustained is attributable to the want of a reasonable and proper degree of care and skill in the defendant's treatment. Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill. He does not undertake, if he is an attorney, that at all events you shall gain your case, nor does a surgeon undertake that he will perform a cure; nor does he undertake to use the highest possible degree of skill. There may be persons who have higher education and greater advantages than he has, but he undertakes to bring a fair, reasonable and competent degree of skill; and you will say whether in this case the injury was occasioned by the want of such skill in the defendant."

It has been held in some American cases that the locality in which a medical man practises is to be taken into account, and that a man practising in a small village or rural district is not to be expected to exercise the high degree of skill of one having the opportunities afforded by a large city; and that he is bound to exercise the average degree of skill possessed by the profession in such localities generally. I should hesitate to lay down the law in that way; all the men practising in a given locality might be equally ignorant and behind the times, and regard must be had to the present advanced state of the profession and to the easy means of communication with, and access to, the large centres of education and science. For example: Port Perry is a two hours' journey from a city of a quarter of a million inhabitants, with three medical colleges and numerous hospitals.

There is no implied warranty on the part of a physician or surgeon that he will effect a cure. He can be treated as an insurer or guarantor of success only if there be an express agreement to that effect.

If a surgeon treat a patient improperly, he is liable to an action even though he undertook *gratis* to attend to the patient.

If a patient by his own conduct, or disobedience of orders, has aggravated his injuries to an extent that will account for the mischief complained of, he cannot recover damages from the medical man, having regard to the general law of contributory negligence. The burthen of proof to show contributory negligence is, of course, on the defendant in an action for malpractice.

The failure on the part of a medical man to give a patient proper instructions as to the care and use of an injured limb is negligence for which the medical man is liable for injury resulting therefrom.

These are the principal propositions of law involved in the consideration of the present case.

In addition to the cases cited above, I refer to *Slater v. Baker*, 1767, 2 Wilson, 359; *Carpenter v. Blake*, 60 Barbour, 488; same case 50 N. Y., 696; Beven, *Negligence* 2nd Ed., page 1390 *et seq.*; *Smith on Negligence*, Blackstone Ed., 195, *et seq.*; *American and English Encyclo. of Law*, 1st Ed., vol. 14, page 75 *et seq.*; *Bouvier Law Dictionary*, sub. tit. Physician.

Actions of this kind were, as a matter of course, formerly tried, both here and in England, by a jury; and it was the almost inevitable result that juries, perhaps innocently and unconsciously, looked more favorably upon the case presented by the patient than on that presented by the physician or surgeon. To remedy this condition of affairs, and not to leave doctors entirely at the mercy of juries, the courts in this country early became astute to lay down limitations and restrictions on the actions of the twelve; or, rather as to what matters ought to be left to them to deal with. For example, in 1869, the Court of Queen's Bench held in *Jackson v. Hyde*, 28 U. C. R. 294, that in an action against a surgeon for negligent malpractice, where the evidence is as consistent with the absence as with the existence of negligence, the case should not be left to the jury.

In *Fields v. Rutherford*, 1878, 29 C. P. 113, although there was professional evidence that a different course of treatment might preferably have been pursued, but the weight of evidence showed that the course of treatment pursued by the defendant was such as would have been adopted by medical men of competent skill and good standing in the profession, it was held that there was no evidence of negligence to be submitted to the jury, and a non-suit was entered. These cases were followed in *McQuay v. Eastwood*, 1886, 12 O. R. 402. The *ratio decidendi* of these cases was, that a medical man ought not to be placed in peril with a jury where their decision would involve the consideration of difficult questions in the region of scientific inquiry.

The next step in the practice was the suggestion by the courts that this class of cases ought more properly to be tried by a judge without a jury. This was the corollary or natural logical sequence of the cases which I have cited, and was first made in *Kempfer v. Conerty*, 1901, 2 O. L. R., page 658 (note); and the same intimation was given in *McNulty v. Morris*, 1901, 2 O. L. R. 656. In both these cases it was stated in the judgment that this intimation was not intended to fetter the discretion of the trial Judge in this regard. And so it comes about that this case is tried by me without a jury, the parties having practically consented to my so doing.

The injury which the plaintiff sustained, namely, dislocation of the astragalus, is one which is admittedly not of frequent

occurrence; difficult to diagnose, especially when there is swelling of the parts; and one in which perfect restoration is not, at the plaintiff's time of life, to be expected. I was strongly pressed by counsel in the argument, to find as a fact that David Archer and Dr. Windell did not make a correct diagnosis, or recognize the dislocation of the astragalus at all. Much stress was laid upon the somewhat different accounts given by these two, of the extent and position of the alleged fracture of the fibula. I think that the comments on this subject were somewhat hypercritical; and I fail to see their cogency in this regard. Technically speaking, the breaking or carrying away of portions of the periosteum constitutes a fracture; and I find, on the preponderance of the evidence, that such a fracture cannot be expected to be disclosed after the lapse of two years, by the aid of the X-ray or sciagraph. The sciagraph is not a photograph, it is a shadow, and it is, in the present state of the science, not an infallible guide in fractures, to this extent at least, that it will not always disclose the line of fracture; and the possibility is that the bony covering being reunited might not show at all. I therefore attach much less importance to what is now claimed to be shown by the sciagraph than the plaintiff's counsel wishes me to do. On the whole case, and having regard to the burthen of proof, I find myself unable to determine this point in plaintiff's favor.

The next point in the case is, assuming the diagnosis to have been correct, whether the treatment adopted was in accordance with good surgery. Two medical men were called to say that it was not. Having already been examined as witnesses they were recalled at the very end of the plaintiff's case to criticize the treatment that was adopted. One of them was, apparently, a very respectable country practitioner of eighteen years' standing; the other was the gentlemen who produced the sciagraph and gave evidence based thereon. These two witnesses found fault with the treatment in this respect, that in their opinion, the particular injury in question having been diagnosed a bandage should have been applied with some form of angular splint before putting the leg in a box; and they said that the treatment actually adopted, namely, the wooden box splint with cotton batting packed about the limb, and a bandage outside the box, was not good surgery. I find that this position is not sustained by the preponderance of expert evidence. Dr. George A. Bingham says that what the defendant did was good surgery, and that the treatment suggested by the two witnesses of whom I have spoken would be practically "criminal." Mr. I. H. Cameron is equally pointed and incisive in his statement: he says that the box splint is quite good practice, and that the bandage next the skin and the rest

of the treatment suggested by plaintiff's witnesses "would be the most undesirable that could be conceived." Dr. Herbert A. Bruce says that the splint box and bandaging adopted were perfectly suitable, and that the angular splint and the bandage next the skin would be very detrimental.

To what, then, if I find, as I am bound to do upon the preponderance of evidence, that the case was properly diagnosed and that the proper treatment was adopted, is the present unfortunate result to be attributed? If it came down to a question between negligence or malpractice on the part of defendants, on the one hand, and the extreme improbability, even under favorable conditions, of perfect or even approximate restoration, I think the doctor in charge ought to have the benefit of the doubt. But I am of the opinion that there is abundant evidence to show that the present unfortunate condition of the plaintiff is due to her own conduct.

I may premise by saying that it is clearly proven that it is impossible to say now whether the present dislocation is initial, or is a dislocation subsequent to the injury of the 17th May, and the setting or reduction thereof on the same day. It is further to be observed that Mr. Cameron says that the X-rays show that the astragalus is still in its mortise, *i.e.*, in place as regards the tibia and fibula, but that there is a rotation of the joint, and a displacement of the head of the astragalus outwards. I think I understood Dr. Bruce to say that that condition of affairs was evidence that there had been a reduction of the original dislocation. Be this as it may, Dr. Windell swears that having diagnosed and set and reduced the injury with David Archer on the 17th May, he visited the patient on the 19th May and found her condition satisfactory, and again on the 22nd: he paid a visit on the 3rd June alone, and found that the bandages had been disturbed, and he asked her about it and she admitted that she had had the bandages loosened and had a nice sleep. That he then found a partial dislocation of the astragalus and that he replaced it, put the limb back in the splint and repacked it; that he could not tell what was the extent of that dislocation, but that he does not think that there was any dislocation except at the head. He attributes this partial dislocation to her having fallen asleep and turned over. The three medical experts called by the defence agree in saying that there was very grave danger in a box splint if the patient relaxed the bandages; that it would be impossible to say that there was no disturbance, even if the patient lay perfectly still; that there would be room for spasmodic action of the muscles which might occur involuntarily or during sleep, and which might be attended with grave results; that it would not be possible, even with an effort, to keep the limb rigid for more

than a minute or two; and, moreover, that the result of this disturbance might not be discernible until after the patient began to use the foot, when a gradual inversion of the foot might be looked for as the patient commenced to walk.

I am asked to disbelieve the statement of Dr. Windell, upon the mere ground that while he is not a defendant in the case, his professional reputation is at stake. I find myself unable to do this, especially as his evidence is strongly corroborated. The plaintiff admits having gone to sleep once, while the bandage was loosened; this, however, was after the leg was placed in the plaster-of-Paris splint and cut open on the 12th June; but Mrs. Asling, an apparently independent and credible witness, says that she went in one time and the bandage was loose, and the plaintiff was working at the cotton batting, and witness asked plaintiff not to do it, and cited the case of a relative of her own whose tampering with bandages had been attended with disastrous results. Witness saw it loose on one other occasion afterwards. Both these times were while it was in the box splint; it was unbound when the witness came in and she helped the plaintiff to do it up. She says Mrs. Gibson was there on that last occasion. Mrs. Asling also says that she saw the plaster-of-Paris bandages taken off and the leg was laid bare, and the plaintiff wanted the witness to get it done up in a hurry before Mrs. Baird, plaintiff's daughter, should come in. Mrs. Gibson corroborates this statement, saying that she was at the plaintiff's house with Mrs. Asling one evening that the bandage was loose, and it was bound up while she was there. As far as she can remember it was while in the box splint: it was right out of the splint and that they replaced it in the splint and bound it up in the bandages.

If this evidence were much less clear and convincing than it is; in other words, if the case were much more evenly balanced, I should feel obliged to give the defendants the benefit of the doubt; but, as I have indicated before, I am decidedly of opinion that the plaintiff has failed to make out a case of negligent malpractice, and that the action must be dismissed.

(Signed) W. G. FALCONBRIDGE,
Chief Justice of the King's Bench.

KEMPFFER VS. CONERTY.

BEFORE THE HON. MR. JUSTICE MACMAHON, AT PERTH, WEDNESDAY THE
30TH DAY OF APRIL, 1902.

JUDGMENT.

This case has been very thoroughly discussed, and the points have all been elaborated with great care by counsel on either side with their usual ability. No legal questions are involved, and I have simply to deal with the facts.

The boy, Thomas Kempffer, on the 11th day of September, 1896, being then ten years old, fell from a tree and sustained a fracture of the radius, commonly known as a Colles fracture. The height from which he fell is unknown, and he was unconscious when brought to his father's house. Dr. Bell, who occupies a distinguished position amongst the surgeons of the Dominion, and is connected with the principal hospitals in Montreal, says that in the production of a Colles fracture the force is almost always on the palm of the hand and the ball of the thumb. When the boy was brought home the defendant was called to see him, and after examining the arm returned to his surgery to get the necessary splints to be used after the fracture was reduced. He then returned to the Kempffer house and after washing the boy's hands, he, with the assistance of the two men, Jacobs and Hill, reduced the fracture and then proceeded to put the arm in splints. A question has arisen as to the size of the splints, and it has been urged that I should rely on the evidence of Jacobs and Hill as to their size in preference to the evidence of the attending surgeon. During Mr. Watson's argument I pointed out to him how often the man Jacobs said he did not recollect what took place, and since then I have procured from the stenographer a statement, taken from his evidence as to what he did not know. He said, "Before the doctor came I looked at the hand or wrist I suppose, I did not take much notice to it. Did not notice marks on hand. Did not notice where the material for bandages came from. Did not notice whether the splint differed in width throughout its length. Did not notice whether the doctor had other splints there. Did not notice whether much or little batting was put under splint. Could not tell whether anything was put between the thumb and the hand. Could not tell if springs were put around the bandage. Did not know anything about the boy's color; did not watch to see if it changed. Supposed the boy was unconscious, does not know. Does not know whether the arm was washed before the boy became conscious or not. Did not see where the splints came from. Could not tell where the batting came from. Did not

notice whether a wad of batting was put in the hand. Could not tell whether the batting covered the whole hand before the splint was put on. Thinks the bandage was opened up once, but did not notice whether more batting was put in. Did not notice the width of padding placed in the hand."

It struck me at the time he was giving evidence that either he was not an observant man, or that he was occupied in the duties assigned to him by the doctor, of looking after the chloroforming of the patient, so that when one comes to consider the position occupied by the defendant as a surgeon in attendance on a patient with an injury of the nature described, and feeling that his reputation as a physician and surgeon was at stake, and that the greatest care and skill that he possessed should be given in dealing with the injured arm, I could not come to the conclusion that these men, who were not interested in the kind or size of splints that were required for the purpose for which the doctor was called upon to use them, are likely to be correct in the evidence they give, either as to the size or the material. The doctor says that he had a number of splints in his office, some of which he made himself, and others that he had purchased. He states that the splints were about two and a half inches wide, and they were both of wood. The witnesses, Jacobs and Hill, stated that the splint that was put on the back of the arm was of pasteboard, and that the one placed on the front of the arm and palm of the hand was of wood, and only an inch and a half wide at its widest part. Mr. Hill is connected with the family of the plaintiff by reason of his having married Kempffer's sister, and while I do not say that he is not desiring to state exactly what is true, he has no doubt heard the subject discussed from Kempffer sources, and I do not regard his statement under the circumstances as being entitled to the credit that I give to the evidence of Dr. Conerty, and I find that the two splints were of at least the width of two and a half inches. With regard to the course adopted by Dr. Conerty in putting on the splints, I think the evidence of Hill strongly supports the statements made by the defendant, that every precaution was taken, as far as the hand was concerned, to give it sufficient padding to prevent any injurious results arising from the use of the splints. Dr. Conerty said that the splint was padded with batting, and that he put a ball of wadding in addition to that padding, in the palm of the hand, and that the splint covered the whole of the palm down to the metacarpal bones, and that the hand was well filled with padding. As I say, he is confirmed in that statement by Hill, who says, "There was batting on the palm of the hand under the splint, and a little under the splint on the front of the arm. He made a change and loosened the

bandages and put some cotton batting under the splint." This shows that after bandaging had proceeded to a certain extent, the doctor, thinking it advisable to add some additional padding, opened it up and put in an additional quantity of batting in the palm of the hand. It was urged that the splint went down to the end of the fingers. I think Mr. Watson properly abandoned that, as Hill himself said, and Jacobs said that the splint only went as far as, I think he stated, the end of the palm.

A question has arisen as to the manner in which the bandage was put on the arm. Most of the surgeons say that the proper course is to commence at the bottom and bandage upwards, but they all say that it is immaterial in which way it is done, so long as there is no undue pressure of the bandage on the splint, so long as there is no pressure that would prevent free venous circulation. Dr. Conerty says that he did not adopt either of these methods. He commenced in the middle of the splint with the bandaging and proceeded to the top of the splint and then down to the middle of the hand. There was a good deal of evidence given by Jacobs and Hill as to what position in which the thumb was when the hand was bandaged. They say that it was bent in on the palm of the hand, and that that was the position in which the surgeon bandaged it. Dr. Conerty stated that he adopted the course sometimes adopted in cases of this kind, and bandaged the thumb on a line with the index finger. Most of the surgeons who were called, both on behalf of the plaintiff and for the defendant, say that it is an unobjectionable course, but the majority of them prefer the other method. I think one of them, Dr. Sheppard, said he had heard of it, and he knows that the system is spoken of in the books on surgery. However, they all concur in stating that unless the bandage was so tight as to cause pressure on the thumb and bring it in, that no evil results were likely to follow or should follow from the treatment.

The splints were allowed to remain on the arm for some twenty-three or twenty-four days. When the splints were removed it was found that there was a complete knitting of the bones of the arm, and that with one exception no trouble expected to arise from the condition of the hand. The plaintiff, or his mother or father, do not complain of the condition in which the arm which was fractured was found when the splints were removed. The result was all that could be desired. It is as to the condition of the palm of the hand at the ball of the thumb. The doctor says that when he saw the boy first there was, according to his observation, a slight swelling, and some redness in the vicinity of the ball of the

thumb, about the size of a twenty-five cent piece, and it was stated that the injury was situated in a place where it was likely to have been the result of the impact when the boy fell. That is the place likely to be injured when a Colles fracture takes place. Dr. Conerty did not apparently regard it as at all serious. Perhaps there was no indication that there was any great injury to the hand, and with that idea he treated the hand as if no serious result was likely to follow from bandaging it in the manner stated. When the splints were removed it was found that in the region of the ball of the thumb, where the injury was caused, there was a deadening of the tissue and a cicatrix has formed, and the doctor finding that took upon himself, as he was obliged, I think, to do under the circumstances, the treatment of the thumb so as to bring it back, if possible, to its normal condition. He thought that the necessity for an operation might be avoided by a massage treatment. Dr. Sheppard, Dr. Bell, and I think most of the surgeons, with the exception of Dr. King, say that while that condition of the thumb existed it would be improper to perform an operation, and Dr. Bell pointed out that one of the serious objections to operating at that time was the probable existence of micro-organisms, and if the operation was conducted while these were in existence in the hand, that it might result disastrously to the patient. He considered that the hand should be thoroughly healed before an operation was attempted, and I find from the evidence before me that that would have been the proper course to pursue. Now the healing was effected by the last of December or first of January, and the doctor thought that by constant massage the necessity for an operation might be obviated. The mother of the boy says that the defendant endeavored to move the thumb, and did move it slightly, that the motion caused pain, but notwithstanding that Dr. Conerty thought that by continuous use of the massage treatment the thumb would come all right and a perfect cure effected within six or twelve months' time at the latest. On the 4th of October, 1896, the doctor removed the splints, and he saw the boy again three days afterwards, on the seventh of the month. Between the 7th of October and the 16th of November, although he had been asking the mother of the boy to bring him every day, or every other day, to his surgery, she neglected to carry out his instructions. After that he only saw the boy twice during December, on the 2nd and the 7th, and then in January he saw him five times, on the 16th, 17th, 20th, 28th and 30th, and four times between the 2nd and 9th of February. He saw nothing of the boy at all until June, when he supplied him with a plaster cast for use on his hand. The cast was produced here, and from its appearance, if the boy had been using it,

the thumb would, when placed in the cast, be some distance from the index finger, and he (the boy) said he had been using it from time to time until he brought it back to the doctor's office in August and left it there, stating to the person in attendance that he used it as a paddle when he was out swimming.

Now, having regard to the treatment Dr. Conerty had prescribed, which, as he told Mrs. Kempfer, could only be carried out by the boy being brought to his surgery for treatment, one cannot say that the present condition of the thumb is owing to any want of skill on the doctor's part. Whatever neglect there was was not his neglect, and from the evidence of Mrs. Kempfer herself it is quite apparent that the doctor was finding fault with her for not making the boy keep his appointments in going to the surgery for treatment. That is borne out also by the evidence of the housekeeper, Mrs. Hunter, who says that she was present on one occasion when Mrs. Kempfer brought the boy there, and that the doctor was much dissatisfied with the condition in which the boy's hand was, and told Mrs. Kempfer that no progress towards a cure could be expected, owing to the neglect of the father and mother in seeing that the boy came regularly for treatment. The findings I have made exonerates the defendant from the charge of a want of skill or care. The reduction of the fracture was perfect, and the condition in which the thumb is now found arises from want of care and attention on the part of the parents of the boy, and of the boy himself, in not submitting to and following out the defendant's instructions.

The action will be dismissed.

Selected Article.

ABSTRACT NOTE ON GASTROSTOMY

By F. TERRIER,

Professor of the Surgical Clinic of the Medical Faculty of Paris,

AND

A. GOSSETT,

Fellow of the Faculty of Paris.

(*Revue de Chirurgie*, 10 *Ferrier*, 1902.)

We have had occasion to operate during the last year upon eight cases affected with cancerous constriction of the esophagus.

The operative technique is as follows: A lateral vertical incision is made, commencing at the level of the left costal margin and ending at the level of a line passing transversely through the umbilicus. This incision must be made parallel with the median line, and about over the centre of the rectus. After dividing the skin and superficial fascia, the anterior sheath of the rectus is exposed. This is divided vertically for the whole length of the wound, thus disclosing the vertical muscular fibres of the rectus with the aponeurotic transverse striae. Continuing directly from before backwards, the fibres of the rectus muscle are separated by means of the probe director, the muscular fibres are drawn to the right and left, disclosing the posterior sheath of the rectus, which is now divided between two pair of forceps which catch it up on either side, causing a small transverse fold. In dividing the posterior sheath of the rectus one divides the peritoneum also, as the two are intimately connected.

This incision through the rectus muscle was proposed in 1888 by Von Hacker.

An important point to remember is to preserve the vessels and nerves which are seen forming two groups, one above and the other below, running along the posterior sheath of the rectus.

In cases where the vertical space between the two nervous roots is sufficient to permit a large enough opening in the peritoneum, it is better not to divide them, and thus preserve intact the innervation of the rectus, thereby obtaining more surely a contractile sphincter around the projected fistula.

The abdomen being opened, the peritoneum is drawn back by means of forceps, the left side of the wound is retracted

with a retractor, and guided exclusively by view the stomach is located. As soon as the organ is recognized it is seized with a pair of forceps and drawn forcibly out of the wound, forming thus a gastric cone which projects outside the two lips of the incision.

It is necessary to seize the stomach at a point as high up as possible, that is, near to the cardiac end, but not too high, else the gastric cone will not be of sufficient length. The stomach has a tendency during the operation to retract into the abdomen, and unless one takes care this cone will not be of sufficient length, and the suture of the mucus membrane to the skin is rendered difficult and the result functionally compromised. The forceps prevent the retraction of the stomach into the abdomen. The stomach being thus seized and (we insist again upon this point) sufficiently drawn out, the retractors are removed, and the organ is fixed to the abdominal wall by three layers of sutures. The first suture attaches the stomach to the posterior sheath of the rectus, the second to the anterior sheath of the rectus, and the third to the skin.

We use fine silk and small curved needles, and make a suture separated at two points and U shaped. The first layer of sutures unites the stomach to the posterior sheath of the rectus, four only are required, and are placed at the four cardinal points, the first one is placed near the upper end of the wound and goes successively through the outer half of the posterior sheath of the rectus, sero-muscular coats of the stomach and then the inner edge of posterior sheath, and tied above, thus completing the U. The other three sutures are then inserted in a similar manner, one at either side and the other below, after which the rest of the posterior sheath is closed in the usual way. The second layer of sutures, similar to the first, attaches the stomach to the anterior sheath of the rectus, and the rest of the anterior sheath closed. Nothing more is required to complete the operation, except the opening of the stomach and suture of the skin.

We always complete the operation at one sitting. In order to get an orifice as small as possible, the apex of the stomach cone is caught between two pair of Kocher's forceps, and in such a way as to produce a vertical fold of the sero-muscular coat, we transfix the base of that fold with a very small bladed bistoury, and cut outwards. The sero-muscular coat only is divided, and a very small opening is made if care has been taken, as very little tissue is grasped between the forceps. The mucus coat now bulges out from this opening in the sero-muscular coat, it is caught in a like manner, transfixed and opened, great care being taken that a very small opening is made. The mucus membrane is now attached to the skin by means of

a few fine silk sutures, and the rest of the skin wound closed by means of horse hair.

Theoretically, this procedure has the following advantages: First, a relatively long canal, since it reaches from the posterior sheath of the rectus to the skin surface, perhaps 1.5 cm. to 2 cm. in length, this canal goes directly from behind forwards, from the cavity of the stomach to the exterior. This may appear a defect, but the gastric mucus membrane being drawn forcibly outside forms an ectropion of the mucosa, which constitutes in itself a sort of natural obdurator. It is in order to obtain a bulging out of the mucosa as large as possible that we advise incising the walls of the stomach separately, first the muscular coat which retracts upon itself, then the mucus coat which retracts upon itself, then the mucus coat which has been carefully drawn forward from the opening; and lastly, the canal thus obtained is surrounded by a double muscular sphincter. The fibres of the rectus which have been carefully separated without cutting them, and preserving their nervous supply, which form to the right and left of the fistula a solid muscular collar which can only serve to obliterate the fistula, and prevent it from leaking, and perhaps assisting in that work also, to a certain measure is the muscular coat of the stomach, which is retracted and bulged up at the base of the protruding mucus membrane, in which is the external orifice.

Results.—The execution of this operation is as simple as possible, and it lasts from fifteen to twenty minutes.

In our eight cases we had one death in the first twenty-four hours, the patient, during two months preceding the operation, while in the medical service, had been submitted regularly to a series of dilatation, and for eight days before the operation had not been able to absorb any nourishment, subcutaneous injections of artificial serum had been omitted, and the patient was in such an extreme state that we had to operate without an anesthetic, general or local. The operation was done rapidly and very simply. The patient died at eleven in the evening; he had been operated on at ten in the morning.

Four of our patients have lived, one for twenty-two days, another for thirty days, and the other for forty-one days, the other three are still living, one after nine and a half months, second after four months, third after three months. The four cases that have succumbed so rapidly could not have survived longer, the one had a tracheo-esophageal fistula, and a localized pulmonary gangrene. Another had the pneumogastric nerves involved in the tumor, the third was operated on one year previously for a tumor of the tongue, there was a large recurrence with compression of the trachea and esophagus. Three days before the gastrostomy he had undergone an urgent

tracheotomy, and he died at the end of thirty days from hemorrhage, having its source in a neoplastic ulceration of the floor of the mouth.

Our other operative cases are living yet, and one has survived one and a half months.

The criterion of a good procedure for gastrostomy is the success of the sphincter, and absence of leakage from the fistula. We have always, except in two cases, obtained perfect retention of the stomach contents; in one of the cases, where there was incontinence, we had made a faulty technique, not having drawn out a sufficiently long gastric cone; and the mucosa, instead of making a pad by bulging forwards, had retracted towards the abdomen, and in a way invaginated the neighboring skin. In place of having a canal we had nothing more than a simple orifice.

As to the second patient who had incontinence, it only appeared after four weeks and was temporary. The patient was seen at the time of writing, three months afterwards, and the sphincter action of the muscle was perfect.

We think that it is necessary, in speaking of the patulous condition of the fistula, to consider not only the method employed but also the condition of the patient, as the incontinence is observed sometimes in cases some days preceding death, who formerly had had good sphincters.

Conclusions.—It is granted at this time that in order to obtain an opening into the stomach which will not permit the escape of its contents, the opening should be made as small as possible and placed as high up as possible. It is also necessary to obtain, not a simple opening, but a canal as long as possible, with mucus folds capable of acting as a plug and a contractile sphincter to keep the walls of the canal in apposition.

The procedure which we now employ, and the one already described, fulfils these conditions. It consists essentially in a vertical left lateral laparotomy, drawing a gastric cone through the wound and attaching it by means of three layers of sutures, a double layer which unites the sero-muscular coat to the posterior and anterior sheaths of the rectus and a superficial layer which unites the mucus membrane to the skin. The opening, practically isolated, of the sero-muscular layer and of the mucosa, permits a bulging out of the mucosa, which forms a plug to the opening. The muscular layer, after retracting on the mucosa and the two halves of the right rectus, play the role of a sphincter.—*Abstracted by Ingersoll Olmsted.*

Society Reports.

TORONTO CLINICAL SOCIETY.

STATED MEETING, May 7th, 1902.

Dr. J. F. W. Ross, President, in the chair.

The following Fellows were present: Small, Orr, Ross, Baines, Pepler, Cotton, Rudolf, Goldie, McCollum, Hamilton Harrington, McIlwraith, Fenton, Hastings, Silverthorn, Bingham, Nevitt, Lehman, Fotheringham, Stark, Garrett and Elliott.

The minutes of the preceding meeting were read and confirmed.

Membranous Glossitis.

Dr. A. J. Harrington reported this case, which occurred in a child of eleven months. The child had had measles in March, 1902. There was a history of injury, and five days later Dr. Harrington was called to see the child. The temperature was 103, and the respiration 36. On April 8th the whole cast of the tongue exfoliated. The whole system was thoroughly saturated with sepsis. Death resulted. Specimens and cultures were exhibited.

Dr. Baines discussed this interesting case, stating that the condition was a new one to him.

Dr. Baines reported a case of metorrhagia which occurred in a young girl aged sixteen, following an attack of mumps.

Dr. Rudolf referred to a case of mumps in the submaxillary glands, expressing his belief that mumps had always been confined to the parotid glands.

Dr. Pepler spoke of having observed mumps in the different salivary glands.

Notes on Urotropin.

Three cases were reported by Dr. Fenton to which he had administered this drug. Most marked results had been obtained from the employment of it in an old man with enlarged prostate and residual urine. Drs. King and Baines spoke favorably of the drug.

Myxomatous Degeneration of the Villi of the Chorion.

Dr. C. J. C. O. Hastings reported three cases of this condition which he had observed in his own practice, two of which recovered. Drs. Silverthorn, McIlwraith and Ross discussed this paper.

Dr. Fotheringham referred to a case which was reported to the Society by himself and Dr. Bingham, some months previously, a case of exophthalmic goitre, in which loss of voice occurred after operation. The loss of voice had extended over eight months when the patient awoke one morning with her voice restored, proving that the condition had been due to hysteria.

The following officers were elected for the ensuing year: President, Dr. E. E. King; Vice-President, Dr. G. R. McDonagh; Corresponding Secretary, Dr. W. J. McCollum; Recording Secretary, Dr. George Elliott; Treasurer, Dr. Geoffry Boyd; Executive Committee, Drs. J. F. W. Ross, J. Orlando Orr, J. T. Fotheringham, H. C. Parsons and H. A. Bruce.

GEORGE ELLIOTT,
Recording Secretary.

CANADIAN MEDICAL ASSOCIATION.

Below will be found a list of papers already promised for the annual meeting at Montreal, September 16th, 17th and 18th next. Members and others contemplating contributing to the success of this meeting should notify the General Secretary at an early date of their intention. Arrangements as to railroad and steamship rates, entertainments, clinics, etc., will be announced in due time.

Address in Medicine—Professor William Osler, Baltimore. Address in Surgery—Dr. John Stewart, Halifax, N.S. Lantern Demonstration on the Exanthmata—Dr. Corlett, Cleveland. Paper by Dr. D. Campbell Meyer, Toronto. Paper by Geo. S. Ryerson, Toronto; subject not yet decided on. Paper by A. Laphorn Smith, Montreal, also card specimen. Paper by F. A. L. Lockhart, Montreal. "On some points in Cerebral Localization, illustrated by a series of Morbid Specimens and some Living Cases"—James Stewart, Montreal. Paper and Specimens, by Dr. Geo. A. Peters, Toronto. The Country Practitioner of to-day—J. R. Clouston, Huntingdon. Paper by Dr. P. Coote, Quebec. The Pathologic Prostate and its removal through the Perineum—A. H. Ferguson, Chicago. Paper by Geo. E. Armstrong, Montreal. Paper by Ingersoll Olmsted, Hamilton. Paper by Dr. Casey A. Wood, Chicago—"Empyema of the Frontal Sinus." On Tuberculosis—J. F. Macdonald, Hopewell, N.S. X-Ray in Cancer—A. H. Robinson, New York. On Degeneration of the Spinal Cord, Anemia, Mal-nutrition, with Microscopic Specimens—David A. Shirres, Montreal.

GEORGE ELLIOTT,
General Secretary.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

The Heart in Chronic Articular Rheumatism.

In violent acute articular rheumatism the co-existence of an endocarditis, of a pericarditis or of an endo-pericarditis is the rule and the absence of such is the exception. On the contrary, in subacute articular rheumatism, limited in character and apyretic, the lesions of the pericardium and endocardium are only exceptionally met with. Since 1840, when Bouilland formulated this proposition, most authorities have too absolutely denied the relations which exist between organic affections of the heart and chronic articular rheumatism. In recent years this subject has occupied the attention of several medical men, and within a short period not a few works have been published, among which is a very interesting one by Barié. In 1846 Romberg, Todd, Chareot and Trastour published the first cases of cardiac lesions in chronic rheumatism. In 1864 Bean related the case of a young woman suffering from chronic arthritis, in whom were discovered the physical signs of a stenosis of the aorta. Subsequently Ollivier, in a young man, 20 years old, afflicted with chronic polyarthritis deformans, found changes in the aortic valves. Barthez, in a boy of 10 years, whom he was treating for chronic articular rheumatism, discovered pericardial friction sounds in the præcardial region, and this dry pericarditis coincided with an exacerbation of the rheumatism. Cornil, out of nine cases of chronic articular rheumatism followed by autopsy, found pericarditis four times. In two of these the pericarditis was acute, developed during the rheumatism. In the other two the pericarditis has existed for some time, and had produced adhesions with obliteration of the pericardium, complete in one case, partial in the other.

In 1866 Ball published two important cases. The first was that of a woman 60 years old, suffering from rheumatism of the right hand. At the autopsy there was found a recent general adhesion of the pericardium, the heart was enormously dilated and vegetations existed on the mitral valve and on the aortic valves. In the second case the patient was a woman 84 years old, with chronic rheumatism in the shoulders, elbows

and knees, who died of cancer of the stomach and liver. The heart was flaccid, large, loaded with fat, and on the aortic valves there were clear traces of an old endocarditis. Mauriac reports a case in a woman, 71 years old, with chronic rheumatism and bronchial catarrh, who was suddenly seized with intense dyspnea. Percussion showed increase of cardiac dulness, and auscultation revealed a rough pericardial sound, throughout the whole of the lower half of the sternal region. Charcot, too, in one of his lectures in 1867, as a result of observations in his hospital, came to the conclusion that endocarditis and pericarditis are certainly found in some cases, of chronic articular rheumatism. In later years similar cases of no less interest than these, have been reported by Charpentier, Stoicesco and Dally.

Besnier admits a particular frequency of cardiopathies in that form of chronic rheumatism, called by Iaccoud, fibrous, which is characterized by superficial articular lesions with chronic changes in the periarticular tissues, producing deformities, anchyloses, etc.

The co-existence of cardiac lesions, with chronic articular rheumatism, is far less frequent than is observed in acute articular rheumatism. Lancereaux, making a comparison between the latter and chronic arthritis, recognized that in acute rheumatism the dangers are in the frequency of the mitral lesions, whilst in chronic rheumatism the danger is in the arterio-sclerosis, either with or without lesions of the aortic orifice. Iaccoud says: "Usually in chronic rheumatism we do not find valvular lesions, but pericarditis, atheroma, and, as a consequence, hypertrophy of the heart."

These lesions have been observed oftener in women than in men, which is not strange, inasmuch as chronic rheumatism is most frequent in the former. They have been seen at all ages. In chronic arthritis deformans the most frequent cardiac lesion, according to Jaccond, is pericarditis. Then come endocarditis, hypertrophy of the heart, degenerative changes of the myocardium, and finally cardio-sclerosis. The pericarditis is sometimes dry (Barthez), sometimes with exudation, all varieties of the former are found, from the simple pseudo-membranous, to that characterized by universal adhesions with complete obliteration of the sac. In the latter we often find the hemorrhagic form. In one case the endocarditis was at the same time parietal and valvular. Insufficiency is the most frequent form of aortic lesion. These lesions and the degenerations bring on, after a certain time, insufficiency of the myocardium and asystole.

As for the pathogenesis of lesions of the heart in chronic articular rheumatism we cannot compare it with that of acute rheumatism, because, at the present time, although the microbic

origin of the latter has not been incontestably proven, yet it is admitted by most pathologists.

Those who suffer from chronic rheumatism with cardiac complications can be classified in three groups: (1) In the first group the cardiac affection, which has existed for a long time, seems to run a course parallel with that of the rheumatism, but without direct connection with it, since in the previous history of the patient are discovered pathological conditions, such as typhoid fever, syphilis, etc., to which we must refer the cardio-aortic lesion; or scarlet fever, diphtheria, erysipelas, of the lesion is mitral.

(2) In the second group, when we study the evolution of the cardiopathy, we find that it has arisen during an acute or subacute rheumatic attack, which has developed upon a chronic arthritis.

(3) In the third group are gathered the cases, much more rare, in which the chronic arthritis has arisen without being preceded or complicated by any acute or subacute manifestation.

Even if we admit that acute articular rheumatism can in some cases leave articular or peri-articular changes, yet, at the present time, it is generally held that it differs completely, in its nature, from chronic rheumatism.

Dèbove observes that the articular and muscular lesions of chronic rheumatism can be attributed to changes in the central and peripheral nervous system. Likewise Lancereaux says that the lesions of chronic rheumatism are similar to those observed in locomotor ataxia and in general paralysis, and that they originate from some disturbance in the trophic innervation.

Until pathological anatomy can confirm the hypothesis of Dèbove and Lancereaux, chronic rheumatism may be placed in the list of diseases due to retarded nutrition, among which gout and diabetes, as well as chronic rheumatism, may be complicated with organic heart lesions. These complications are produced by the pathological changes peculiar to these three diseases of nutrition.

Bocker found, in the urine of a person with chronic rheumatism, marked diminution of calcium phosphate, while in the blood this salt was four times as plentiful as in the normal state; as always in such cases, uric acid was not found in the blood. The study of the blood and other humors in chronic rheumatism has still to be completed. We, however, in the present state of our knowledge, accept the above theory of the relation between chronic rheumatism and organic heart lesions. —Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN AND J. O. ORR.

Refractive Errors as a Cause of Mental Dulness in Children.— *St. Paul Medical Journal.*

It would hardly seem necessary at this late day to call the attention of the general practitioner to the importance of a careful examination of the eyes in children who show either persistent headaches or inaptitude in their studies, and yet the number of children who are brought to oculists, not upon the advice of their family physicians, but through other influences, would tend to show that the medical profession, as a whole, is not as yet fully alive to the important influence which refractive errors have upon the physical and mental development of this class of the community.

Dr. Charles Stedman Bull, in the February number of *Pediatrics*, calls attention to the frequency with which apparent dulness at school is the result of poor sight.

The presence of adenoids and various other afflictions have long been recognized as important causes for this apparent dulness, but few practitioners seem to realize that an uncorrected refractive error is far more frequently at the bottom of the trouble than these rarer afflictions.

Persistent headaches will frequently suggest to the family physician the possible need of glasses, but dulness and inattention to studies is set down to deficient mental power, or to laziness, and the child is either taken out of school as too dull to acquire an education, or, if he pursues his studies, does so at the expense of an infinite amount of labor, and when his defective sight becomes so manifest that it can no longer be ignored, discovers that the eyes have been permanently injured by the excessive strain put upon them.

An examination by a competent oculist, not by a so-called "graduate optician," will often save years of suffering, both mental and physical, and convert a backward, dull child into a bright scholar who excels his schoolmates in the very studies in which he formerly failed most signally.

This is a subject which should receive careful consideration from the family physician.

Syphilitic Ulcer of the Eyelid.—W. C. POSEY, in the *Ophthalmic Record*.

The patient was a female, aged 52 years. She was the mother of seven children, five of whom were living, the youngest being 17 years old. She never had a miscarriage,

and no information was obtained in regard to a primary sore. The diagnosis was made first, from the fact that she had a running sore upon the skull due to necrosis of the bone, and second, from the nature of the ulcer. The ulcer extended from a point about 4 mm from the external commissure of the lids to the junction of the outer and middle third of the lid. It had entirely destroyed the margin of the lid, cutting one or two deep notches into it. The edges of the ulcer were clean cut but indurated, and its bed was filled in with white necrotic tissue. The ulcer had at first appeared as a small lump like a sty upon the outer margin of the lid, it gradually enlarged, and after three weeks a small open sore appeared on the inner part of the lid. This area spread rapidly.

The patient had been under antisyphilitic treatment for some months in ordinary doses; but these doses had to be doubled, and an iodoform ointment used twice daily before the ulcer was healed. Posey is of opinion that the lump resembling a sty by which this ulcer began was a gunma.

Operation for Corneal Complications of Gonorrheal Ophthalmia.

—H. C. PARKER (*Ophthalmic Record* for April.)

Saemisch's incision (the passing of a Graefe knife from clear cornea to clear cornea, and dividing the ulcer) is usually recommended in the books, but no series of cases has been published known to the author. Parker operated on twelve cases, in all of them the ulcer had been spreading rapidly over the cornea, the spreading ceasing, however, after the operation was done. The following results are noted: Out of the twelve cases but one resulted in loss of the eye, in the other eleven there was a useful eye in each case. In most cases the operation should be done early, but it also should be done if the ulcer is extensive and accompanied by bulging of Descemet's membrane. It is necessary to keep the wound open and draining well. The wound should be opened once, or even twice, daily. After the operation the discharge and œdema have rapidly subsided and the patient quickly becomes more comfortable.

Tendon Tucking in Strabismus.

J. E. Colburn (*Ophthalmic Record*) objects to tendon tucking, first on account of the danger of non-adhesion between the tendon and the ocular wall; second, the persistency of the thickening resulting from the folded tendon. The thickening may be very disfiguring. He prefers a combined operation of section and tucking, which is really a shortening of the tendon, and not an advancement.

Cerumen as a Cause of Cough.

Breitung, in the *Wiener Klin. Woch.*, reports the case of a boy who had coughed a long time in paroxysms, with a tickling sensation in the larynx. The cough was very severe; and no cause for it could be found. Finally the author discovered cerumen impacted in his ear, which was softened and removed by syringing. While doing this he caused severe attacks of coughing. After the ear treatment was stopped, the cough disappeared, nor has it returned in the three years which have passed since. Breitung believes that this is a frequently undiagnosed cause of reflex coughing.

Cerumen as an Indirect Cause of Somnolence.

W. G. B. Harland (*St. Louis Medical and Surgical Journal*) gives the history of a boy of 13 years who was brought to the hospital complaining of a tendency to sleep constantly. Careful examination was made by Dr. Talley, as well as by the author, and the only abnormal condition discovered was a small impaction of cerumen in the left ear. This was removed by syringing, and a few drops of very fetid pus escaped. The drum was perforated. The sleepiness disappeared the following day. So long as the passage is kept clear there is no return of the somnolence; but, if the wax be allowed to block the passage even slightly, there is a tendency to recurrence of the symptom. The exact cause of the somnolence has not been determined, but the case is an interesting one, and shows the importance of keeping the meatus clear.

J. T. D.

Editorials.

THE MEETING OF THE ONTARIO MEDICAL ASSOCIATION.

The recent meeting of the Ontario Medical Association was successful, and it is generally conceded that the success was due chiefly to the ability and zeal of the President, Dr. Powell, and his two lieutenants, Drs. Fotheringham and Milton Cotton, and the committees working with them.

The meetings of the last few years have not attracted as many members as those of ten or twelve years ago. We believe that the reason for this is the fact that some of our meetings have been poor, if not solid failures. The attendance at the recent meeting was the largest for some years. The character of the papers and discussions, and the work done by lantern demonstrations, and in a clinical way, were much above the average. This ought to make it easier to work up enthusiasm for the meeting next year. It was a foregone conclusion that Dr. Mitchell would be President. No man in the association, be he from the east, west or north, better deserves the honor. There are some unwritten laws, such as, the President shall be elected from Toronto every second year, and from the east and west every four years, respectively. No member shall be elected President unless he has previously attended a few meetings. We have no desire to complain of the east, which is furnishing us such a good President for next year; but we think it is generally understood that we have got sadly poor support as to numbers from that section in recent years.

There seems to be a very decided objection to the division into sections for certain portions of the programme. To those who hope that the association will be progressive in character it is difficult to see how it can be avoided. We know of no prosperous general medical society in any part of the world that is able to manage without it. The deadest and flattest meetings we have known are those in which the amount of work offered was so small that there was plenty of time to hear in general session the papers and discussions, with some

to spare for the cranks with their grievances and their amendments to the constitution.

Why is it that there seems to be no proper announcement made respecting the election of the Nominating Committee? The gross carelessness shown in this regard during the last few years has been deplorable.

UNIVERSITY OF TORONTO.

The proceedings at the recent Convocation were, in some respects, more than usually interesting, although somewhat tedious. We desire to congratulate Dr. Reeve, the Dean of the Medical Faculty, on his LL.D. degree, which he well deserves on his own merits, apart from the position he holds in his Faculty.

One of the most interesting features of the programme was the unveiling of the portrait of Hon. Wm. Mulock, ex-Vice-Chancellor. Principal Caven, in presenting it, laid particular stress on Mr. Mulock's support of the re-establishment of the Medical Faculty in 1887, and on his pre-eminent services in connection with confederation, which, without him, could not have been brought about. Vice-Chancellor Moss, on behalf of the University, was glad to receive the portrait of Mr. Mulock, who had greatly distinguished himself both as a University man and a statesman.

Everyone was pleased to again see our good friend, Dr. W. H. Drummond present, and honored as he was. He has captured our University, graduates and undergraduates alike. The other recipients of the LL.D. degree were all well received, especially by the students. The speeches connected with this ceremony occupied so much time that the audience grew very weary, and long before the programme was completed the gymnasium was practically empty.

The Alumni dinner was fairly successful although the number of graduates present was not so great as it should have been. We can hardly expect many from a distance to come to the dinners and meetings when no serious issues affecting the welfare of the university are in evidence. It is sometimes difficult for busy men living in Toronto to attend both the Commencement proceedings in the afternoon and the dinner in the evening.

The officers of the Alumni Association have done exceedingly good work during the last three years, and we are glad to know that this is generally appreciated. Some think, however, that honors should "pass round." All right! pass them round, but don't replace good workers with inane figureheads. Judging from our experience in the past we are inclined to think that when we get zealous and faithful officers we had better *hang on* to them as long as we can.

BATHING IN FRESH AND SALT WATER.

Many people have greatly exaggerated ideas as to the benefits to be derived from bathing, especially in salt water, such as that found on the shores of the Atlantic or the Lower St. Lawrence. Those who visit the resorts in those regions have noticed that a large proportion of the visitors do little or no sea-bathing after the first two or three days. The latter are often greatly disappointed, and think, as the result of their unfortunate experience, that sea bathing does "no good."

Such people are generally quite correct in thinking that their sea baths or swims have been weakening rather than invigorating, but they do not understand the reason. The bad results have been due to injudicious methods of bathing. They have "overdone" it during the early days of their visit, and have thus spoiled it altogether.

We quite agree with the following, taken from the address of Dr. John Grannis, President of the Connecticut Medical Association, delivered at the recent meeting:

"I am accustomed to saying that for the average child or adult the maximum of benefit is obtained by not more than one half hour a week, five minutes every day or ten minutes on alternate days; and, further, if after thorough rubbing there remains a feeling of lassitude, an inclination to lie down, or the desire for a stimulant, the time must be shortened to that point at which, after the bath, the bather exhibits a full reaction and a desire to resume his play or occupation immediately."

We think it would be well for physicians to take more pains and explain to their patients the good or evil which may result from judicious or injudicious methods of bathing.

TOWN VS. ARCHER AND ARCHER.

We are pleased to have the opportunity of publishing in this issue the full text of the judgment recently delivered by Chief Justice Falconbridge in the recent case of alleged malpractice tried in the High Court of Justice, Toronto. The lawyers for the defendants, Drs. D. Archer and R. Archer, practising in partnership in Port Perry, claimed that the action should be voided under the Statute of Limitation by reason of the lapse of time. According to this statute no surgeon "shall be liable to any action for negligence or malpractice by reason of professional services requested or rendered unless such action be commenced within one year from the date, when, in the matter complained of, such professional services terminated." The claim of the defendants in this regard was allowed by the Judge.

We are very glad the judgment did not depend altogether on this technicality. The Chief Justice considered it due to all the parties concerned to pass upon the merits of the case. Malpractice and negligent malpractice are clearly defined, and it is further pointed out that "if a surgeon treat a patient improperly he is liable to an action even though he undertook *gratis* to attend to the patient."

Actions for malpractice were formerly tried by jury, but generally juries favored the patient at the expense of the surgeon. Consequently the courts laid down limitations and restrictions on the action of the jury, or, rather, as to what matters ought to be left to them to deal with. Finally, it was decided that this class of cases be tried by a Judge without a jury. Hence this case was tried by Chief Justice Falconbridge without a jury.

We desire to congratulate Drs. Archer on their complete vindication. The closing words of this remarkably clear and able judgment are as follows: "If the evidence were much less clear and convincing than it is, in other words if the case were much more evenly balanced, I should feel obliged to give the defendants the benefit of the doubt; but, as I have indicated before, I am decidedly of opinion that the plaintiff has failed to make out a case of negligent malpractice, and that the action must be dismissed."

KEMPFER VS. CONERTY.

Since commenting on Chief Justice Falconbridge's judgment we have received the judgment of Mr. Justice McMahon *re* suit of *Kempffer vs. Conerty*, which we are glad to publish this month. The judgment of the latter like that of the former, is clear and fair, we think, to all parties.

There was a serious difference between the evidence of the witnesses of the plaintiff and that of the defendant as to the shape and size of the splints applied to the boy's arm for the Colles fracture. The Judge considered that Dr. Conerty was likely to have a more correct idea in this regard than the other witnesses, and so ruled. He also considered that all the evidence showed that every precaution was taken, as far as the hand was concerned, to use sufficient padding. Dr. Conerty bandaged the thumb on a line with the index finger. Most of the expert surgeons, giving evidence, pronounced this an unobjectionable course, but the majority preferred the other method.

The splints were left on the arm twenty-three or twenty-four days. When removed there was bony union; but the condition of the palm of the hand and ball of the thumb was not satisfactory, and Dr. Conerty thought further treatment was necessary, and used massage instead of operating. Most of the surgeons considered that immediate operation would have been dangerous on account of the presence of micro-organisms on the hand. A question arose as to carelessness or neglect. The boy should have received more frequent treatment. The defendant ordered the boy to be brought to his surgery every day or every second day. The Judge ruled finally that the reduction of the fracture was perfect, and that the condition of the thumb was due to the neglect of the father and mother and boy in not following out instructions. The action was dismissed. Congratulations to Dr. Conerty!

British Columbia Medical Association.

The third annual meeting will be held in Vancouver, on Friday and Saturday, August 29th and 30th. Members desirous of presenting papers will kindly notify the Secretary, J. M. Pearson, as soon as possible.

Personals.

Dr. E. Lelia Skinner has removed to 40 Carlton Street.

Dr. Price Brown, of Toronto, visited Boston early in June.

Dr. Arthur Small, of Toronto, returned to his home with his bride, June 7th.

Dr. Shaw Webster, of Toronto, visited New York during the first week in June.

Dr. Fred. J. Hart, of Barrie, was married, June 5th, to Miss Bain, Winnipeg.

Dr. Graham Chambers, of Toronto, spent a week, June 7th to 14th, in New York.

Dr. J. W. Rutherford, of Chatham, was married to Miss Jessie Taylor, June 11th.

Dr. J. Franklin Dawson, of Toronto, was married to Miss Hilda Richardson, June 11th.

Dr. Frank C. Trebilcock, of Enniskillen, was married, June 18th, to Miss Sparling, Toronto.

Dr. James Stewart, of Montreal, was elected President of the Association of American Physicians at the May meeting.

Dr. Alex. Stewart has decided to remain in Fort William, where he took over the practice of Dr. Dean about six months ago.

Dr. G. S. Beck, after travelling in Great Britain and Europe for about six months, has returned to Port Arthur, and resumed practice.

Dr. Walter H. McKeown, of Toronto, has removed from McCaul Street to the residence of the late Dr. James H. Burns, College Street.

Dr. W. J. Wilson, of Toronto, left for Atlantic City, June 16th. After remaining there a few days he intended to visit the hospitals in Philadelphia and Baltimore.

Dr. Alexander Munroe, of Victoria, B.C., spent a few days in Toronto in the second week of June. He then went on to Baltimore, where he will engage in post-graduate work in Johns Hopkins Hospital.

Dr. T. Shaw Webster, of Toronto, spent a month visiting hospitals in Baltimore, Philadelphia and New York. He worked two weeks at operative gynecology under Dr. W. R. Bryon, of New York polyclinic.

Professor Wm. Osler, of Baltimore, will spend a portion of the summer at Point-au-Pic, Murray Bay, Quebec.

Dr. Beattie Nesbitt has retired from the presidency of the Simcoe Old Boys' Association. Dr. Wylie was elected President and Dr. Todd Vice-President, at a recent meeting.

Mr. Macdougall King and Mr. George E. Mackenzie, of the final year in medicine, University of Toronto, who went out to South Africa with the Canadian Field Hospital Corps last January, have been allowed their examination, and will be formally admitted to the degree of M.B. on their return to Canada.

Dr. Chas. O'Reilly, of Toronto, went to New York, June 8th. On his journey he injured his leg in attempting to board a morning train at Niagara Falls. After resting a few days in New York he went to Pittsburg on a trip arranged for him by some of his friends in the American Association of Hospital Superintendents.

Col. Neilson, Medical Director-General of Canada, attended the meeting of naval and military surgeons of the United States in Washington during the first week in June. There were present many delegates from Europe. Col. Neilson says all the visitors were treated in a most hospitable way; but more especially those from Great Britain and Canada.

Dr. Marshall Dean, after leaving Fort William, took charge of Dr. Beck's practice in Port Arthur for six months. He passed through Toronto, June 12th, on his way to Brighton, where he will spend a few weeks at his father's residence. In the latter part of July he will go to London, England, where he expects to spend a couple of years at post-graduate work.

Results of Final Examinations, Medical Faculty, University of Toronto.

M.D.—E. S. Hicks.

M.B.—Miss E. L. Anderson, Miss E. Connor, Miss K. McLaren, A. E. Archer, G. H. L. Armstrong, G. M. Atkin, W. J. Bell, A. Brown, J. L. Campbell, W. J. Chambers, W. S. Dakin, E. J. Davey, G. C. Draeseke, H. R. Elliott, J. Esler, A. Fisher, G. W. Fletcher, J. J. Fraser, E. E. Fry, J. E. Godfrey, J. A. S. Graham, J. N. Gunn, V. E. Henderson, E. T. Hoidge, J. L. Huffman, J. R. Irwin, E. P. James, W. T. Kergin, O. Klotz, R. W. Leader, H. Logan, D. McBane, H. N. McCordie, A. D. McEachern, N. T. MacLaurin, W. A. R. Mitchell, A. Moir, C. H. Montgomery, W. G. Montgomery, R. H. Mullin, A. Murdock, H. E. Roaf, R.

W. Rutherford, P. W. Saunders, F. Short, D. Smith, A. E. Snell, L. L. Stauffer, H. J. Sullivan, W. T. Wallace, O. C. Withrow, A. B. Wright.

Medals.—Faculty Gold Medal, H. E. Roaf, P. W. Saunders, equal; First Faculty Silver Medal, G. W. Fletcher; Second Faculty Silver Medal, A. Moir; Third Faculty Silver Medal, A. E. Archer.

Scholarships.—First Year, 1. W. S. Lemon; 2. R. L. Clark. Second Year, 1. A. Kinghorn; 2. S. B. Walker.

Post Graduate Scholarship.—The George Brown Memorial Scholarship in Medical Science. For this Scholarship J. E. Davey, G. W. Fletcher, H. E. Roaf, P. W. Saunders, A. E. Archer, and A. Moir ranked in the order named.

Results of Final Examinations University of Trinity College.

M.D., C.M.: W. F. Adams, E. W. Allin, S. G. Allwood, A. H. Anderson, M. R. Blake, W. B. Boyce, E. Brandon, J. D. Burns, T. C. Campbell, J. R. C. Carter, Mabel A. Cassidy, R. W. Clancy, Annie Davis, F. O. Gilbert, W. J. Harris, J. Henderson, H. B. Hutton, G. T. Imrie, R. N. Irving, W. A. McCauley, C. H. McDougall, H. McKay, Elizabeth McMaster, J. R. Morrison, J. H. O'Neill, F. A. Ritchie, W. Robertson, Annie Ross, H. E. Service, T. F. Seymour, W. A. Smith, O. Sternberg, Isabella M. Thomson, John Thomson, John J. Thomson, J. M. Waters, R. Waugh, W. T. Williams, Isabella S. Wood.

Medical Council.

The following candidates have passed the final examination, and are now qualified to practice in Ontario: H. G. Arnott, T. D. Archibald, J. W. Atkinson, W. J. Brown, H. A. Bowie, C. W. Brand, J. G. Bogart, J. B. Coleridge, F. J. Colling, John Collison, H. M. Collison, J. D. Chisholm, J. Coreoran, F. P. Coates, J. A. Campbell, T. V. Curtin, J. E. Drury, W. C. Doyle, H. C. De St. Remy, H. E. Day, G. F. Dalton, F. J. Doherty, G. Davis, C. R. Elliott, J. S. Genge, A. J. Grant, W. S. Grimshaw, V. E. Henderson, O. S. Haist, D. E. Hodgson, J. T. Hope, W. T. Hamilton, J. Herod, G. F. Jackson, S. Johnston, G. B. Jamieson, R. J. Kee, T. H. Leggett, R. W. Leader, C. P. Lusk, W. H. Lowry, R. H. Mullin, J. J. Morrow, J. W. Merrill, J. J. Mason, J. W. Moak, E. A. Martin, A. D. MacIntyre, D. G. Mellwraith, J. A. McCollum, J. M. McCormack, J. McCulloch, G. R. Pirie, S. E. Porter, R. Parsons, H. R. Parent, W. C. Redmond, J. Rogers, C. G. Robertson, D. M. Robertson, J. F. S. Riches, A. E. Rannay, C. M. Reason, A. B. Rutherford, E. Richardson, P. W. Saunders, J. Smillie, J. A. Smith, G. W. M. Smith, A. Turner, Isabella Wood, C. S. Wainwright, Jean M. Willson, L. N. Whitley, D. G. Whealey, W. D. Young.

Obituary.

FRANCIS OAKLEY, M.D.

Dr. Oakley, of Toronto, died May 7th, aged 72. He graduated M.D. Victoria University, in 1862.

THOMAS SMITH WALTON, M.D.

Dr. Walton, for many years a practitioner of Parry Sound, died June 13th. He graduated M.D. University of St. Andrew's, Scotland, 1862.

JAMES HAYES, M.D.

Dr. Hayes, of Simcoe, died suddenly, May 31st, aged 58. He graduated from McGill, where he had as fellow students Drs. Temple and O'Rielly, of Toronto, in 1866, and soon after settled in Simcoe, where he practiced until a short time before his death.

THOMAS WILLIAM REYNOLDS, M.D.

Dr. Reynolds died in Baltimore, June 9th. He graduated from McGill in 1881, and was for many years Assistant Medical Superintendent of Hamilton Asylum for Insane. After having two or three hemorrhages from the lungs last winter, he went to Ashville, N.C., where he spent a few months. He started for his home in Hamilton in the latter part of May, but stopped on his way at Baltimore. He grew rapidly worse until death came. The remains were brought to Brockville, and buried June 12th.

LORENZO BACHUS, M.D.

Dr. Lorenzo Backus, of Chatham, died suddenly June 13th, aged 45. He graduated from Trinity University in 1883, and went at once to England, where he soon passed the examination of the Royal College of Physicians, London. He had been ailing

for some weeks but was only confined to bed about two days. He was unmarried and had his surgery and living rooms in the Backus block. The janitress found him dead in his bed on the morning of June 13th.

WILLIAM MILLER ORD, M.D., F.R.C.P. Lond.

The death of Dr. William Miller Ord took place on the 14th May, marks the termination of a very successful and laborious career.

Dr. Ord was the eldest son of Mr. Ord, who had a large practice at Streatham. He was educated at King's College and took the degree of M.B. London in 1857, after a brilliant career at St. Thomas's Hospital, to which institution he became house surgeon and subsequently surgical registrar. Circumstances at that time obliged him to go into general practice and for some years he assisted his father at Streatham, an experience which he always asserted proved of the greatest possible service to him. After some years he was appointed lecturer on zoology at St. Thomas's Hospital. In 1869 he was admitted to the membership of the Royal College of Physicians, and two years subsequently, the hospital having meanwhile been removed to its present site, he was elected assistant physician. He occupied successively the lectureship on physiology and that of medicine, succeeding the famed Dr. Murchison.

Dr. Ord's name will perhaps be best remembered in connection with the important work which he carried out in elucidating the clinical future of the then new disease, myxedema. He was secretary to the Committee of the Clinical Society appointed to investigate the disease, and his researches were conducted with such care and completeness that his writings on the subject really left little to be added. It is to Dr. Ord, indeed, that we owe the designation "myxedema," which has been universally accepted. Another remarkable series of investigations bore fruit in a paper on "The Influence of Colloids on Crystalline Forms and Cohesions," which fully explained the varying forms of crystals which fall in urinary sediments. Dr. Ord also devoted an immense amount of labor to the compilation of the "Nomenclature of Diseases"—a task assumed by the Royal College of Physicians. This work will remain as a lasting monument of skill and comprehensiveness in classification.

Dr. Ord's health began to fail three years ago, after repeated attacks of influenza, but he continued to practice. His health, however, steadily declined, until about two years ago, when he

relinquished active work and retired to Hurstbourne Tarrant, near Andover. He led a quiet, enjoyable existence amid his books and the attractions of a country life, but a few weeks ago brain failure began to manifest itself, and he was taken to the residence of his son at Salisbury, where he died — *Medical Press and Circular*.

WYATT GALT JOHNSTON, M.D.

Dr. Wyatt Johnston, of Montreal, died suddenly in the General Hospital of that city, June 19th, aged 39. The cause of death was pulmonary embolism following phlebitis, for which he had been treated for some weeks. Deceased was educated at Bishop's College, Lennoxville, and graduated, M.D., McGill University in 1885. He became resident medical officer at the Montreal General Hospital, and was also appointed demonstrator in pathology in McGill University in 1885. In 1894 he became lecturer in bacteriology, and a year later lectured in medico-legal pathology, as well. In 1897 he was appointed assistant professor of public health, and lectured in medico-legal pathology. He was recently appointed professor of hygiene. He was also pathologist to the Montreal General Hospital, bacteriologist to the Provincial Board of Health, and medico-legal expert for the Coroners' Court.

Correspondence.

TRANSPOSITION OF ORGANS.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW :

SIR,—I wish to report a case of situs inversus, or transposition of organs. On the 19th of March, 1902, I was called to see a young woman 15 years old, suffering with inflammatory rheumatism. On examination I found a pleuritic friction rub on both sides with considerable dulness on the left. On examining the heart I could not find the apex in the normal position, but in the corresponding position on the right side. I at first thought that there was sufficient pleuritic effusion on the left side to crowd the heart to the right, but I could distinctly detect the pleuritic friction and there was no bulging of the side, which I might have expected in such an extensive effusion, and there was no difficulty in the breathing and but little cough. In a few days the rheumatism seemed better, but endocarditis and pericarditis set up, and I called in Dr. T. Farncombe, of Trenton, to see the case, and we came to the conclusion that it was a case of transposition of the organs. She died April 10th, and I asked for and was granted permission to hold a *post mortem*. I invited two or three neighboring M.D.'s but something preventing their attendance, I asked two young ladies who were present to assist me. I found the organs just as we had suspected. The heart in the corresponding position on the right side, that it normally is in on the left. The liver on the left side. Fundus of stomach to the right and pyloric ending in the duodenum, surrounding the head of the pancreas, on the left, spleen on right side. I forgot to notice whether the colon and the lungs were transposed. There was but little pleuritic effusion, I being deceived by the liver dulness on the left side. There was extensive pericarditis, the surface of the heart being shaggy, with the inflammatory exudate. I noticed a case reported in the March number of the *Medical World* of an old soldier, but it did not state whether an autopsy was held to verify it. Are they rare? or are such abnormal conditions frequently found?

G. H. WADE, M.D.

WOOLER, ONT.

Book Reviews.

Diphtheria. By WM. P. NORTHRUP, M.D., of New York. **Measles, Scarlet Fever and German Measles.** By PROFESSOR DR. TH. VON JURGENSEN, Professor of Medicine in the University of Tubingen. Edited, with additions, by William P. Northrup, M.D., Professor of Pediatrics in the University and Bellevue Medical College, New York. Handsome octavo, 672 pages, illustrated, including 24 full-page plates, 3 of them in colors. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$5.00 net; half morocco, \$6.00 net. Canadian Agents: J. A. Carveth & Co., Toronto.

This volume, the third in the series of English translations of the "Nothnagel System of Practical Medicine," needs no recommendation. Professor Jurgensen and Dr. Northrup are too well known for us to expect anything but the best. The article on diphtheria, entirely original with the editor, is fully in keeping with the high standard set by the other German articles which comprise the work. Dr. Northrup, having been associated with Dr. O'Dwyer at every step in the perfection of intubation tubes, is particularly fitted to describe this aspect of the treatment of diphtheria. Professor Jurgensen's monograph on measles unquestionably is the most comprehensive contribution on that infection that has appeared, bringing out so fully the valuable Danish records of the Faroe Islands epidemic. His exposition of scarlatina is unrivalled both for richness of clinical detail and exactness and clearness of statement. "Fourth Disease" and German measles have been accorded spaces consistent with their importance. The editor has shown judicious decision in his extensive additions, making the work far and away the best and most up-to-date treatise of the subjects extant. The book is profusely illustrated, containing, besides a large number of text cuts, twenty-four full-page plates, three of which are in colors.

Progressive Medicine, Vol. I, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 452 pages, 5 illustrations. Per volume \$2.50, by express prepaid to any address. Per annum, in four cloth-bound volumes, \$10.00. Philadelphia and New York: Lea Brothers & Co.

In volume I for 1902 the surgery of the head, neck and chest is considered by C. H. Frazier. The account of recent wonderful progress in the surgery of the gasserian ganglion, and of the heart, will at once attract the attention of all thoughtful men. There is no physician who can afford to overlook the immense value of the knowledge that a wound of the heart may be operated upon with as little hesitation as a wound of the brain, and that in pericarditis with effusion, tapping the heart is entirely practicable. The section on infectious diseases, by F. A. Packard, deals with typhoid fever, tuberculosis, and the various eruptive diseases, the constant progress in the study of which is revolutionizing all our pre-

vious ideas regarding their diagnosis and treatment. Floyd M. Crandall writes of the diseases of children; the importance of pediatrics to the general practitioner is daily emphasized and a knowledge of the recent advances in the science of infant feeding has been rendered absolutely necessary. The section on pathology by Ludvig Hektoen is a summary of the work being done in a science which underlies every department of medicine, and yet with which it is impossible for the clinician to familiarize himself unless studied through some such medium as the present. Laryngology and Rhinology are written of by St. Clair Thomson, their relation to general diseases coming in for special consideration. R. L. Randolph's section on otology concludes the volume, discussing various problems of otology which bring it into relation with the general practice of medicine. The very complete index which accompanies the book renders it easy to consult. These quarterly volumes may be regarded as a progressive text-book of medicine, containing as they do contributions which cover every field of medicine and surgery, and written by men who know exactly what is of the greatest value to the practitioners for whom they write.

The Diagnosis of Surgical Diseases. By DR. E. ALBERT, late Director and Professor of the Surgical Clinic at the University of Vienna. Authorized translation from the eighth enlarged and revised edition, by Robert T. Frank, A.M., M.D., with fifty-three illustrations. New York: D. Appleton & Co. Toronto: Geo. N. Morang & Co.

The work before us is a very lucid translation of Albert's much appreciated German work. There exists at the present time in the English language very few books that deal with surgical diagnosis, while those dealing with medical diagnosis exist in profusion. This volume is written in the free conversational style that is characteristic to German authors; has not treated the subject as is usually done, by dividing surgical diseases under classical headings, but has looked upon them rather from their clinical aspects, and makes his diagnosis by comparison and elimination. The chapters which deal with appendicitis rather surprises one on account of its brevity; it is quite evident that the distinguished German surgeon does not appreciate the appendiceal condition as we meet it in America; however, that may be or may not be a good thing for the patient, undoubtedly cases are operated upon that need not be, and we are sorry to say some are left that should not be. Considerable attention is devoted to abdominal tumors, largely of a cystic nature: these conditions are comparatively rarely met with now, and authors are tending to eliminate them from their treatises. We are very glad to see this reference in Albert's work, as it is a valuable method of keeping the practitioner in touch with a subject that he does not meet with

in the usual run of cases, and is apt to overlook when met with. The work can be highly recommended and will be of great value to all practitioners. The publishers have spared no effort to present the volume in a most attractive form.

Atlas and Epitome of Otology. By GUSTAV BRUHL, M.D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen Smith, M.D., Clinical Professor of Otology Jefferson Medical College, Philadelphia. With 244 colored figures on 39 lithographic plates, 99 text illustrations, and 292 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$3.00 net.

The first portion of the book is the atlas. In this we have thirty-nine plates, and in each plate one or more figures. Taking them at random we find in plate No. 1 ten figures, in No. 12 one, and in No. 39 there are twenty-four figures. These plates are colored to the life, thereby giving the anatomy of the parts most clearly. By far the greater number of figures, however, are for the purpose of illustrating pathologic changes, both macroscopic and microscopic. And it must be confessed that no illustrations, even in the higher priced books, are superior to these admirable representations. They reproduce the conditions so exactly that not only are they of the greatest value to the student, but enabling the practitioner to see almost every change which takes place, thus aid in their recognition most materially. The remaining portion of the book, the "epitome," was written to contain "everything of importance in the elementary study of otology." In this the author has been successful. Beginning with the anatomy, and devoting thereto sixty pages, he has given us one of the best accounts of this subject at present available. His descriptions (and diagrams) are clear, sufficiently full, and contain the results of the latest investigations. The course of the auditory nerve fibres is stated most clearly. Sections upon the physiology, methods of examination, pathology and treatment complete a book which should be in the hands of every medical man interested in the organ of hearing. J. T. D.

American Gynecology is to be the title of a new journal which is announced to begin publication in July. It will be devoted to gynecology, abdominal surgery and obstetrics. The journal will be owned and controlled by a stock company, consisting solely of members of the profession interested in its special field. It will be conducted under the editorial management of J. Wesley Bovee, M.D., of Washington, D.C.; Charles Jewett, M.D., of New York; Charles P. Noble, M.D., of Philadelphia; Reuben Peterson, M.D., of Ann Arbor, Mich., and J. Whitridge Williams, M.D., of Baltimore. Mr. E. W. Reynolds will be the business manager. The office of publication will be No. 1 Madison Avenue, New York, N. Y.

Selections.

SURGICAL HINTS.

After suturing a wound of the bladder always fill the viscus with sterile salt solution, to observe whether there is any leakage, and place additional sutures if needed.

If possible, never allow a patient who has been operated on, and who requires dressings, catheterization or any other steady attention, to be placed in a wide bed. It is harder to keep a patient still in such a bed, and very difficult to attend to them properly.

Young children hardly ever suffer from hemorrhoids, and bleeding at stool, in the absence of symptoms of dysentery, is nearly always caused by the presence of a polypus. This may often be discovered upon digital examination, and must then be removed by tying off through a speculum.

In cases of paroxysmal pains in women, recurring at intervals, and giving no very marked symptoms of any distinct affection, and particularly if there is no evidence of inflammatory disturbance, it is always well to think of the possibility of hysteria. This disease has been known to simulate appendicitis, renal and hepatic colic, and many other surgical affections. In many cases operations have needlessly been performed when the trouble was entirely hysterical.

Whenever a foreign body has been swallowed, it may be removed by an emetic, or by gastrotomy, or it may be allowed to pass through the intestinal canal. If the body is of such size and form that it may be vomited, it is always safest to cause the patient to eat some pultaceous food, like oatmeal, before causing him to vomit. If the body, though small enough to pass readily through the esophagus, is sharp, such as a pin or other small sharp article, give plenty of bulky food and trust that it may be passed. Large bodies must be removed through the stomach walls.—*International Journal of Surgery.*

A Note on the Bacteriology of One Form of Eczema.

Whitfield has pursued special researches into the bacteriology of dry eczema, dry seborrhea, etc., of the face of children. Clinically the eruptions studied are characterized by small, well-defined discs of varying size, seated chiefly upon the cheeks, chin and neck, with a special predilection for the skin about the mouth. In the latter locality the horny layer becomes fissured

by the movements of the skin, and the scales which form are firmly adherent. The patches on the face show no tendency to symmetry of arrangement. While there may be extension at their periphery there is no tendency to head in the centre. Although several cases may be seen in one family we have no evidence that this form of eruption is contagious. On the other hand, it is certainly seen more commonly after cold winds than at other times.

A patch of eruption was curetted and bouillon cultures obtained from the scrapings. A coccus was recovered in specimens from every individual examined, which grew freely upon gelatin without liquefaction. This germ was non-pathogenic to guinea-pigs, and was unable to produce any eruption when inoculated into the human arm. Nevertheless the author believes it to be a form of staphylococcus, and, further, identical with the germ claimed by Merrill as the cause of seborrhœic eczema. This micro-organism was the only one constantly present in these cases.—*British Journal of Dermatology*.

Report of a Case of Dementia Præcox.

William Rush Dutton, Jr., states that the majority of authors agree that this disease is a degenerative psychosis. He describes the case of a Norwegian woman, thirty-one years of age, and sums up the symptoms of the case, which he reports as follows: Mental depression, exaggerated tendon reflexes, a weakening of the heart's action, cyanosis, and a decrease of weight while taking nourishment well. Simple perception of external ideas was not interfered with, but there was fallacious sense perception. Negativism was present, but not very marked. Disturbance of the emotional life was shown by periods of depression and attacks of boisterousness. Stereotypy and verbigeration were shown on several occasions. Katatonic rigidity was present. This case seems to illustrate the katatonic form of dementia præcox.—*Amer. Jour. of Med. Sci.*

For Epididymitis.

Chevillot (*Médecine Orientale*) recommends friction of the scrotum every three days with the following ointment:

- R Methyl salicylate, 150 grains.
 Extract of belladonna, 45 grains.
 Lard, 450 grains.
 M. ft. ungt.

After friction the scrotum should be enveloped in cotton wool and a suspensory bandage applied. At the end of some hours the pains are said to cease and the patients can get about at their occupations in two or three days. Cure is effected in from eight to twelve days.

Miscellaneous.

The Income of Physicians.

Recently one of the best-known physicians in New York died, a man with a reputation on two continents, who reached the acme of his fame early and had far more than the average years of prosperity. Yet, when his estate was computed, great surprise was expressed on every hand at finding that he had managed to save during a long and busy life only the earnings of two or three years. The same occurrence can be noted every day. A supposedly prosperous physician dies, leaving nothing, while his son gives up his college education and his daughters are compelled to eke out an uncongenial existence as teachers or stenographers.

No doubt the incomes of most physicians are greatly exaggerated. The average income of the well-established city physicians is probably nearer twenty-five hundred than five thousand dollars, while the general average is said to be far below one thousand. But physicians apparently leave much less behind them than other men with similar incomes.

The business training of physicians is to quite an extent responsible for this. Each one does a vast amount of charity work for which he gets little credit, and this is especially true of the men who have an appearance of prosperity from the relative size of the fees they do collect. He is a poor collector, sending out his accounts at infrequent and irregular intervals and creating the not unnatural impression that he does not need the money. Small wonder, then, that the family medical bill is paid only after all other reasonable family desires have been satisfied.

We do not suppose it is possible to suggest any satisfactory fee-scale, but it is self evident that the scale which taxes the clerk a day's wages for consultation, while his employer escapes with the income of a minute, is, to say the least, not an equitable one. Neither can the system be defended as business-like by which the physician treats for nothing a multitude of patients who would willingly pay a small fee for the same service if the fee were in proportion to their means. And if the fees at one end of the scale are too high, those at the other end are certainly too low, as compared to other professions. The man who does not begrudge his pastor a handsome fee for a ten minutes' wedding ceremony, very often thinks the same fee too much for as many hours' work in facilitating the advent of his first-born. The business man pays his attorney a large fee for drawing his will in an emergency and then disputes the account of the surgeon who obviated the immediate necessity of that will.

This inferior business instinct also shows itself in a false professional pride. The laity generally rank a physician according to the location and beauty of his office and the size of his consultation fee, and very many members of the profession are unable to get rid of the same pernicious idea. As a consequence the aspirant invests his income in an expensive office, charges an exclusive fee, and fritters away hours in idleness rather than accept the smaller sums which he might have. Such a policy is good business for a few, but there are not rich patients enough for all, and if one adopts the plan he should do it with the clear understanding that the chances are distinctly against him. After all, the ones who lead the busiest, happiest professional lives, who do the most good in the world, and who leave the most behind, are the ones who have the least of this false professional pride.

While it may be good business policy to have an office in an exclusive neighborhood, by it insuring larger fees and a more exclusive practice, the same reasoning does not apply to a residence in the same neighborhood unless it be amply within one's means. Of course the physician likes to have his family live well and enjoy the society of many of the people who are his patients, but when, on an income of five thousand, he tries to live next to and like the banker on a hundred thousand, he pays a ruinous price.

Certain portions of our large cities are crowded with physicians attempting just this thing. They have the superficial appearance of prosperity; their families are apparently perfectly secured against want and live in style only justified by quadruple the income. After the funeral it transpires that the utmost endeavor has paid the rent or kept up the interest, while the family living has been made from the renting of furnished rooms.—*N. Y. State Journal of Medicine.*

Poisoned to Save Expense.

A Chinese boy was brought into the Pekin Hospital terribly injured by a heavy log falling upon him. The doctors, to save his life, cut off his leg. The mother came, apparently to help nurse the lad. The patient, however, almost immediately afterwards died, and expert examination showed that his mother had given him arsenic. Her reason, it is supposed (says the *Indian Medical Gazette*) was to prevent her son from the disgrace of reaching the next world in a maimed condition. This is a very strong point with the Chinese, who always pickle an amputated member to have it buried with them when they eventually die. In this instance, the family being poor and a whole leg being difficult to pickle, the simpler course was taken of poisoning the boy, so that he and his leg might go together.—*British and Colonial Druggist.*

Senator Vest's Tribute to the Dog.

One of the most eloquent tributes ever paid to the dog was delivered by Senator Vest, of Missouri, some years ago. He was attending court in a country town, and while waiting for the trial of a case in which he was interested, was urged by the attorneys in a dog case to help them. Voluminous evidence was introduced to show that the defendant had shot the dog in malice, while other evidence went to show that the dog had attacked defendant. Vest took no part in the trial and was not disposed to speak. The attorneys, however, urged him to speak. Being thus urged he arose, scanned the face of each jurymen for a moment, and said:

"Gentlemen of the jury: The best friend a man has in the world may turn against him and become his enemy. His son or daughter that he has reared with loving care may prove ungrateful. Those who are nearest and dearest to us, those whom we trust with our happiness and good name, may become traitors to their faith. The money that a man has he may lose. It flies away from him, perhaps when he needs it most. A man's reputation may be sacrificed in a moment of ill-considered action. The people who are prone to fall on their knees to do us honor when success is with us may be the first to throw the stone of malice when failure settles its cloud upon our heads. The one absolutely unselfish friend that man can have in this selfish world, the one that never deserts him, the one that never proves ungrateful or treacherous, is his dog. A man's dog stands by him in prosperity and in poverty, in health and in sickness. He will sleep on the cold ground, where the wintry winds blow and the snow drives fiercely, if only he may be near his master's side. He will kiss the hand that has no food to offer; he will lick the sores and wounds that come in encounter with the roughness of the world. He guards the sleep of his pauper master as if he were a prince. When all other friends desert he remains. When riches take wings and reputation falls to pieces, he is as constant in his love as the sun in its journey through the heavens. If fortune drives the master forth an outcast in the world, friendless and homeless, the faithful dog asks no higher privilege than that of accompanying him, to guard against danger, to fight against his enemies. And when the last scene of all comes, and death takes the master in its embrace, and his body is laid away in the cold ground, no matter if all other friends pursue their way, there by the grave side will the noble dog be found, his head between his paws, his eyes sad, but open in alert watchfulness, faithful and true even in death."

Then Vest sat down. He had spoken in a low voice, without a gesture. He made no reference to the evidence or the merits of the case. When he finished, judge and jury were wiping their eyes. The jury filed out but soon entered with a verdict of \$500 for the plaintiff, whose dog was shot; and it was said that some of the jurors wanted to hang the defendant. —*Nashville American*.

Verdict for Death Caused by Automobile.

On May 22nd Frank E. Thies recovered a verdict of \$8,125 against Edward R. Thomas in the Supreme Court, in a suit for \$25,000 damages for the death of his son, seven years old, who, in February last, was run over and fatally injured by Mr. Thomas's automobile. This is the first case of the kind that has been decided in New York, and the charge of the presiding justice to the jury has attracted considerable attention as defining the statutes regarding the liability for personal injuries in such cases. In the course of it he said: Being or playing upon a street is not of itself contributory negligence in such a child. If the automobile in question came upon the deceased under circumstances to produce fright or terror, and such fright or terror caused an error of judgment by which the boy ran in front of the automobile, the error was not contributory negligence. The mere rate of speed, whether high or low, lawful or unlawful, is immaterial, unless it entered into the cause of the accident. An automobile has the same duties to perform when meeting pedestrians or vehicles in the streets that other vehicles are subjected to. No owner or operator is exempt from liability by simply showing that at the time of the accident he did not run at a rate of speed exceeding the limit allowed by the law or the ordinances. On the contrary, no matter how great the rate of speed permitted by the latter, he still remains bound to anticipate that he may meet persons at any point in a public street, and he must keep a proper outlook for them and keep his machine under such control as will enable him to avoid a collision with another person, also using proper care and caution. If necessary, he must slow up and even stop. No blowing of a horn or whistle nor the ringing of a bell or gong, without an attempt to lower speed, is sufficient if the circumstances at a given point demand that the speed be slackened or the machine stopped, and such a course is practicable. On the other hand, every such operator of an automobile has the right to assume that every person he meets will also exercise ordinary care and caution according to the circumstances, and will not negligently or recklessly expose himself to danger. —*Boston Medical and Surgical Journal*.

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ON THE CLASSIFICATION OF TUMORS.*

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Once it was established by histological studies that the different forms of neoplasms arise from different tissues, it became possible to group tumors according to their origin. Once again, when, through the observations of the embryologists, it was recognized that the tissues could be grouped according to their origin from the primitive cell layers, it became possible to group tumors in the same way. This was done more especially by Waldeyer, and we obtained thus a classification of tumors into those of mesoblastic origin and those of epiblastic and hypoblastic derivation, the tumors derived from the two latter cell layers being grouped together, for it was soon found that they were of the same general type.

Here was a broad and very important generalization, and, what is more, in the then stage of histological and embryological knowledge, it appeared not only to be founded on a sure and scientific basis, but to fulfil to the fullest the needs of the worker. For it appeared to separate two sharply differentiated orders of tumors—those of connective tissue origin and connective tissue type from those of epithelial and glandular origin and epithelial and glandular type. So that for long years this distinction remained dominant; even to-day, in at least one text-book published during the last twelve months, that by Dr. Nicholas Senn, this is given as the acceptable classification.

It is, however, scarcely necessary to say that, with increasing knowledge, many cases were discovered which did not fit

* The main body of this paper was contributed as an address to the Toronto Pathological Society, January 4th, 1902.

into this scheme. A classification which brings together unlike bodies, making them members of our group, is, on the face of it, inadequate and faulty. Now, more especially during the last ten years, *pari passu* with a recognition of the bearing of the fuller and more recent findings of the embryologists, this classification has been found to have the above failing. It is, for example, generally accepted that the specific and characteristic cells of several tissues of the glandular type—of the kidneys, suprarenal bodies, ovaries, testes and uterine mucosa—are of mesoblastic origin, but these, nevertheless, give rise to tumors which may and often do resemble most closely those of hypoblastic and epiblastic origin.

There has been grave doubt as to the embryogeny of the organs in question. The idea that tissues of glandular type can only be derived from the two primary cell layers is very firmly fixed, and in one direction the attempt has been made to show that the organs in question are of hypoblastic or epiblastic origin; in the other, to make out the distinction between these organs and what have been termed "true glands." But I am only expressing the general opinion of modern embryologists and histologists, when I say that all these organs are now accepted by the majority as being definitely derived from mesoblast. And thus the cancer-like tumors which originate in these organs must be accepted as being mesoblastic.

On the other hand, the gliomata have a structure which brings them into close alliance with the atypical or malignant connective tissue tumors, and yet the neuroglia, from which they are derived, is of epiblastic origin. The notochord, again, is an organ of hypoblastic origin. According to Ribbert, and the view is becoming accepted, the remains of this fetal organ may give rise to tumors somewhat resembling myxomata, that is to say, to tumors which, though of hypoblastic origin, are of connective tissue type. Histologically, and for practical purposes, the first series above mentioned ought to be grouped along with the adenomata and carcinomata, and the two last with the sarcomata and connective tissue tumors, but the old embryological classification forces us to make the very opposite arrangement.

These difficulties have induced so strong a reaction that one has only to read the recent text-books and articles published during the last ten years to recognize that pathologists in general, nowadays, refuse to consider embryogeny in their schemes of classification, and from Thoma, or even earlier, from Hamilton in 1889—onwards, through Ribbert and Lubarsch—the list is so long that I need not give it—the tendency has been to divide the autonomous neoplasms into those of typical and atypical connective tissue appearance, and those of typical

and atypical glandular appearance. Some, like Hansemann,* would go so far as to declare that tumors must be described purely according to their histological appearance, and while certain terms in general use must continue to be employed—terms such as adenoma, sarcoma, etc.—nevertheless the only right classification at the present time must be by the organ, the tumors originating from one or other tissue being grouped together. So that, for example, we must group together the adenomata and carcinomata of the liver as a class distinct from the adenomata and carcinomata of the stomach. In short, they urge that the topographical classification is the only one possible at the present time.

There is undeniably a virtue in this position, provided that it is assumed in a proper spirit and regarded in the right light: not as a final stage, beyond which it is impossible to advance, but as a temporary stage of careful collection and collation of all the facts bearing upon the tumors proper to each individual organ, to the end that we may, from the knowledge so gained, proceed to further and sounder generalizations, that we may utilize the facts so amassed, to formulate broad statements concerning neoplasms, their relationship one to the other, and their mode of growth.

But against such a position this has to be said: all these years, whatever the scheme of classification popular at one time or other, pathologists have not been idle, so that we are already in possession of an enormous amount of material, and, what is more, of accurate illustrations of the same. Hence, if preconceived notions as to embryological relationships modified the earlier conclusions reached concerning one or other form, the details have been honestly described, and the descriptions and the accompanying illustrations help us to determine where the earlier conclusions need correction. Nay, more, we already possess exhaustive studies upon the various forms of tumors affecting one or other organ, the mammary gland, uterus, kidney, skin, etc. Taking everything into consideration, the time ought to be ripe for attempting more than this individualizing method. So, to repeat, I believe that we have by us embryological and anatomical observations which permit us to proceed further. What is more, I believe that, for a sound classification, we must inevitably pass backwards to the developmental relationship of the different tissues, that we must accept an embryogenetic basis, but one more in consonance with our present knowledge.

It is not necessary here to dwell upon the relationship of morbid to normal processes, and to show that the former in

* Hansemann, D. "Die mikroskopische Diagnose der bösartigen Geschwülste." Berlin: Hirschwald, 1897, p. 22.

each case are but exaggerations in one or other direction of the latter; nor need I point out the importance of a knowledge of the development of each tissue in arriving at a determination of the modifications which may be undergone by that tissue. In his Middleton-Goldsmith lecture in New York, Minot* has during the last year treated this latter subject in so masterly a manner, that anything I could say would be but a feeble reflection of his admirable presentation of the bearing of embryology upon pathology. What I wish now to point out more especially is that we pathologists—and we are not by any means the only ones to blame—have during these years continued to hold fixed and stereotyped views with regard to the exact nature and development of the different germinal layers, and it has been this misconception of these layers and the changes undergone by them, and of the mode in which the various tissues have been derived from them, that has brought us to this stage of discarding classifications constructed along embryological lines.

We have, that is, held as a body, that from a given layer, as, for example, the epiblast, only tissues, and tumors, of one general type are developed, and in practice we have found that this is not wholly the case. We have concluded that embryogenesis is a broken reed, and this despite our willingness to discover in it the basis for sound classification.

In order to indicate how a classification, which is primarily embryological, can be developed, it will be necessary for me to indicate rapidly what are the leading facts with regard to the earlier stages in the development of the different types of tissue, and I must recapitulate matters of a most elementary nature: nevertheless, if by doing this I can make my argument clear, I trust that I shall be forgiven.

The earliest stage to be recognized in the development of the fertilized ovum, once it has proceeded to segment, is the production of a morula, in which the blastomeres form a cluster or group of cells of the same order, with almost entire lack of differentiation. Rapidly this gives place to a second stage in which the component cells arrange themselves into two layers, the epiblast and the hypoblast, so that, at a singularly early stage, the future epiderm and endoderm are recognizable. The next stage to be noted is that the hypoblast, or internal of the two primitive layers, gives rise by proliferation of its cells to a group or mass of cells which now lie intermediate between the primitive epiblast and the hypoblast, and form the anlage of the mesoblast and of the organs derived from that layer, the hypoblast itself still remaining as a distinct lining membrane.

* "On the Embryological Basis of Pathology," *Science*, U.S., 1901, vol. xiii, p. 481.

What I would here note is, that we are perfectly willing to advance thus far and recognize these two primary and the third secondary cell layer. But there, in our appreciation of embryology as bearing upon pathology, we have been strangely apt to stop.

But now, just as the hypoblast gives origin to the mesoblast, so it is perfectly legitimate for us to recognize a similar process on the part of the epiblast: for the epiblastic cells in the immediate neighborhood of the primitive groove proliferate rapidly, and, in so doing, project in part below the original line of the epiblast, and, being forced inwards, a regular mass of cells is developed, in the central portion of which, around the spinal canal, there still remains evidence of its origin, in the form of a definite epithelial lining. This second portion becomes cut off completely from the superficial epiblast to form the mother tissue of the nervous system. Similarly, the hypoblast gives off a second localized mass of cells to form the notochord. Professor Minot has pointed out to me that, while possessing special features, the cells forming this notochord retain throughout epithelial characters, and must assuredly not be regarded as being of connective tissue type. The nature of the cells forming the chordoma of Ribbert makes him more than doubtful as to the origin of this tumor from notochordal remains. I have thus, in deference to this authority, modified my original writing in this respect.

The point I wish here to indicate is that mesoblast, "neuroblast," and notochord are derived from the two primitive cell layers, and, the first two, at least, *lose the lining-membrane characteristic of these two earliest layers, and take on a less differentiated condition prior to further evolution.* At a somewhat later period the mesoblast repeats the process of differentiation, and, from being a simple undifferentiated cell mass which we may compare with the morula, certain of its cells growing outwards between the epiblast and hypoblast, become arranged into a definite layer, to form or enclose the primitive body cavity. From this point onwards we can distinguish two structures of mesoblastic origin—the mesothelium, or lining membrane portion of the mesoblast; and the mesenchyme, or, as I may term it, the mesoblastic pulp.

It will be seen that I here make no note of the separation of mesoblastic elements into archiblast and parablast, as laid down by His. His's conception of the parablast, as arising from the elements of the white yolk and from the "granulosa cells," is now known to be wrong, and indeed he has himself withdrawn his earlier hypothesis as to its origin. Add to this, that so hopeless a confusion has arisen among writers as to what is archiblastic and what parablastic, that we have no

option but to discard these terms. As pointed out by Minot, the recognition of the separation of the mesoblast into mesothelial and mesenchymatous elements respectively, suffices for all practical purposes to indicate that which is of real importance in His's observations, namely, the recognition of the ultimate evolution of the primitive mesoblast into two distinct series of cellular constituents.

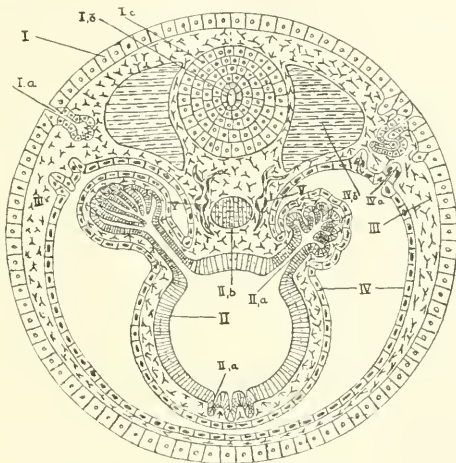
For our purpose, it is unnecessary to choose definitely between the two main contending views as to the origin of mesenchyme. Whether all the primitive mesoblast first passes into a mesothelial stage, from which by further proliferation the mesenchyme is derived; or whether, on the other hand, a portion of the mesoblast does not undergo conversion into mesothelium, but continues directly to develop into mesenchyme, is for us a relatively secondary matter. The important point is, that we have to recognize that the primitive mesoblast is eventually separated into these two sets of cells, and of these the mesothelium is differentiated into a layer of the lining membrane type.

At a still later date masses of mesothelial cells again accumulate, and, as was the case with the epiblast and the hypoblast in the earlier stage, they give off on either side a mass of more undifferentiated cells, and these masses form the mother tissue or anlage of the eventual striated muscle. Later, though still in this embryonic period, with the development of the first vessels, the mesenchyme gives off a series of cells of the lining membrane type, which form the eventual lining cells, or endothelium, of the vascular and lymphatic systems.

There is still some little uncertainty as to the exact relationship of the vascular endothelium, whether it be directly derived from mesothelium or from the mesenchyme. As Professor Minot has pointed out to me, His has of late indicated that it is of relatively very early development in certain forms. On the other hand, I learn from Professor McBride that relatively high up among the forms of animal life it may be wanting, as again it may only show itself at a period definitely later than the development of the vascular channels. What I have stated above, thus, may be taken as representing, as accurately as is possible at the present time, the generally accepted relationships in time, of endothelial to other embryonic developments.

Thus during early embryonic life we obtain a series of differentiations of the primitive cell layers leading to the production of two sets of tissues: one which we may term the lining membrane tissues, the other, the pulp tissues. I do not wholly like the latter expression, but can think of none other which more nearly expresses the conception which I wish here to impress on the reader, namely, that, in this very earliest

stage the mother cells from which certain tissues are derived already have a definite order and position, as constituting membranes, whereas the mother cells of the other group of tissues lack this definite order and exhibit no marked differentiation.



SCHEMATIC REPRESENTATION OF THE BODY LAYERS.

I. EPIBLAST.

- I. a. Epiblastic gland (skin glands, etc.).
- I. b. Epiblastic cell layer, lining the neural canal.
- I. c. Neuroblast, hyle tissue of epiblastic origin.

II. HYPOBLAST.

- II. a. Hypoblastic gland (lungs, liver, intestinal glands, etc.).
- II. b. Notochord.

III. MESENCHYME.

IV. MESOTHELIUM (lining body cavities, etc.).

- IV. a. Mesothelial gland (kidneys, ovaries, etc.).
- IV. b. Myotomes (origin of striated muscles, hyle tissue of mesothelial origin).

V. ENDOTHELIUM (lining blood and lymph vessels).

If, now, we follow up these two orders of tissues to their full development, we find that from the lining membranes are developed tissues of one character, from the pulp, tissues of a different character. These lining membranes, from whatever layer they originate, may either remain as functional membranes covering an extensive surface, or they may become

modified so as to form the various highly specialized and specific constituents of various organs. To reach this latter stage the epithelium either undergoes extensive infolding, or sends downward tubular processes, which branch to a greater or less extent, or again which sends downward solid processes. as occur, for example, in the development of the suprarenal. In quite a large number of instances it would seem that the first process in the production of the tubular glands is one of budding, or projection downwards into the underlying mesenchyme, of solid processes, which subsequently became hollowed out and tubular (*e.g.*, sudoriferous glands and renal tubules). Thus it comes to pass that the various glandular organs are formed of a parenchyma originating from one of the primitive lining membranes and a stroma of connective tissue which is of mesenchymatous origin. And even in cases where there is the widest divergence from the original type of lining membrane, we find that this distinction still holds, that the parenchymatous cells form *layers or groups into which the vessels do not penetrate, and in which there is an absence of stroma between the members of the cell groups*, the cells being at most united by bridges and by a fine cement material. While, contrariwise, regarding tissues originating from the embryonic pulp, we notice that in them the prominent characteristic is that there is an *intercellular ground substance, either homogeneous or fibrillated, separating the specific cells of the tissue*.

Accepting this conception of the different characters of the different tissues, it will be seen that these may be divided into two great groups, which we may term, provisionally, the lining membrane group and the body pulp group. This division appears to me most important. While some pathologists, like O. Israel* and Buxton,† have already in part noticed this distinction, I do not know that histologists and embryologists have called adequate attention to it. Though I am strongly against the coinage of new scientific terms, there are occasions when this is absolutely necessary, and this appears to be pre-eminently one of these occasions. Thus I would term the lining membrane tissues *lepidic*, from *λεπις*, *λεπιδος*, a rind, skin, or membrane; and what I have termed the pulp tissue *hylic*, from *ὕλη*, crude or undifferentiated material or matter.‡ We can go further and subdivide each of these main groups according as to whether the tissues are of epiblastic, hypo-

* Israel, O., *Berliner klin. Wochenschr.*, xxxvii, 1900, pp. 609, 644 and 667.

† Buxton., *Journ. Cutan. and Genito-Urin. Dis.*, N.Y., February and April, 1901.

‡ I would here acknowledge my indebtedness to Principal Peterson, of McGill University, for aid in the selection of these terms.

blastic, mesothelial, mesenchymatous, or endothelial origin. On this basis we obtain the following classification of normal tissues :

I. LEPIDIC, OR LINING MEMBRANE TISSUES,

in which the blood vessels do not penetrate the groups of specific cells, and in which there is an absence of definite stroma between the individual cells, although such stroma, of mesenchymatous origin, may be present between the groups of cells.

1. EPIBLASTIC—

Epidermis. Epidermal appendages—Hairs, nails, enamel of teeth etc. Epidermal glands. Epithelium of the mouth—Salivary glands. Epithelium and glands of—Nasal tract and associated spaces. Epidermal portion of hypophysis cerebri. Lens of eye. Epithelium of—Membranous labyrinth of ear, anus, male urethra (except prostatic portion).

2. HYPOBLASTIC—

Epithelium of—Digestive tract and glands connected with it. Specific cells of—Liver, pancreas, tonsils, thymus, thyroid. Epithelium of—Trachea, lungs, bladder, female urethra, male urethra (prostatic portion.)

3. MESOTHELIAL—

Lining cells of—Pleuræ, pericardium, peritoneum. Specific cells of—Suprarenals, kidneys, testes, ovaries (Graafian follicles). Epithelium and glands of—Fallopian tubes, uterus, vagina, vasa deferentia, vesiculæ seminales, etc.

4. ENDOTHELIAL—

Lining endothelium of—Blood vessels, lymphatics.

II. HYLIC, OR PRIMITIVE PULP TISSUES.

Organs and tissues in which the special characteristic is that the specific cells lie in, and are separated by, a definite stroma, homogenous, or fibrillar in which there may or may not be blood and lymph vessels.

1. EPIBLASTIC—

Nerve cells, neuroglia.

2. HYPOBLASTIC—

3. MESENCHYMATOUS—

Fibrous connective tissues, cartilage, bone, reticulum of lymph glands, bone marrow, fat cells, involuntary muscle tissue, spleen, blood vessels, blood corpuscles.

4. MESOTHELIAL—

Striated muscle, including cardiac muscle.

With this conception of the two great groups of tissues, we can now proceed to classify the tumors, by which term I refer

here to what Thoma has called "autonomous neoplasms." Of these there are two great orders, the Teratomata and the Blastomata. The former I have elsewhere defined as "tumors composed of the products of growth of one individual within the tissues of another individual of the same species," the latter as "tumors composed of the products of aberrant growth of cells and tissues of the individual in whom they are developed."* It is not necessary here to discuss the correctness of these definitions, for, however defined, I wish here to leave the Teratomata very largely out of consideration; they form a class by themselves, and whether we accept or do not accept the definition above given, we find that their mode of development and their characteristics follow—with complications—the lines about to be laid down with regard to the Blastomata. These latter form the more important class, and it is with them that I wish especially to deal.

Following this scheme of the classification of the normal tissues we may now divide these into two main genera—the lepidomata, originating from the above lining membrane tissues; and the hylomata, originating and derived from tissues developed from the embryonic pulp.

I. LEPIDOMATA, OR "RIND" TUMORS.

A. *Primary Lepidomata.*

1. EPILEPIDOMATA.

Tumors whose characteristic constituents are overgrowths of tissues, derived directly from the epiblastic lining membranes, or true epiblast.

- (a) *Typical*.—Papilloma, epidermal adenoma (of sweat, salivary, sebaceous, and mammary glands, etc.).
- (b) *Atypical*.—Epithelioma proper, carcinoma of glands of epiblastic origin.

2. HYPOLEPIDOMATA.

- (a) *Typical*.—Adenoma and papilloma of digestive and respiratory tracts, thyroid, pancreas, liver, bladder, etc.
- (b) *Atypical*.—Carcinoma developing in the same organs and regions.

B. *Secondary Lepidomata.*

3. MESOLEPIDOMATA.

Tumors whose characteristic constituents are cells derived in direct descent from the persistent mesothelium of the embryo.

Classification of Tumors

- (a) *Typical*.—Adenoma of kidney, testicle, ovary, urogenital ducts; adenoma of uterus and prostate: adenomas originating from the serous membranes, "mesothelioma" of pleura, peritoneum, etc.

* *Brit. Med. Journ.*, 1901, 1, p. 621.

- (b) *Atypical*.—Cancer of the above mentioned organs; squamous endothelioma, so-called, of serous surfaces, epithelioma of vagina.

4. ENDOTHELIAL LEPIDOMATA.

Tumors originating from the endothelium of the blood and lymph vessels; endothelioma, perithelioma.

II. HYLOMATA, OR "PULP" TUMORS.

1. EPIHYLOMATA.

Tumors whose characteristic constituents are overgrowths of tissues, derived from the embryonic pulp of epiblastic origin.

- (a) *Typical*.—True neuroma, glioma.
(b) *Atypical*.—"Gliosarcoma."

2. HYPOHYLOMATA.

Tumors derived similarly from embryonic pulp of hypoblastic origin. Chordoma.

3. MESOHYLOMATA.

A. **MESENCHYMAL HYLOMATA**.—Derived from tissues originating from the persistent mesoblastic pulp or mesenchyme.

- (a) *Typical*.—Fibroma, lipoma, chondroma, osteoma, myxoma, leiomyoma.
(b) *Atypical*.—Sarcoma (derived from mesenchymatous tissues), with its various subdivisions, fibro-sarcoma, spindle-cell sarcoma, oat-shape cell sarcoma, chondrosarcoma, osteo-sarcoma, myxo-sarcoma, melanotic sarcoma, etc.

B. **MESOTHELIAL HYLOMATA**.—Tumors which are overgrowths similarly of tissues derived from embryonic pulp of definitely mesothelial origin. Rhabdomyoma.

It will be seen that in this classification I do not include the deciduoma malignum. As I have pointed out elsewhere,* accepting the view that the syncytium is of fetal origin and not maternal, these tumors have to be classed with the Teratomata, *i.e.*, with the tumors originating in the growth of the cells of a second individual within the tissues of an individual of the same species.

If this classification be studied, it will be seen that we have done away with that deficiency in the earlier embryological classifications, whereby tumors of unlike orders and histological appearances were grouped together, and those of like characters separated. Gliomata, for example, come to be placed close to the mesenchymatous tissues, the gland-like tumors of mesoblastic origin become grouped along with those of epiblastic and hypoblastic origin.

* *loc. cit.*

Have we, accomplishing this, introduced any new difficulties? One objection will undoubtedly present itself, namely, that among the mesolepidomata we have grouped together tumors, some of which are of a strongly epithelial or glandular type, for example, the cancers of the uterus, with others, like the endotheliomata, which tend to be distinctly of a sarcomatous type. But further consideration will show that this, instead of being a weakness, is a strong point in this classification. We have, that is, to recognize that among these mesolepidomata, as above defined, we meet with several forms of tumors of transitional type—tumors which in their least aberrant portions show characters which approximate them to the carcinomata, and in their more aberrant portions are undistinguishable from sarcomata. And, indeed, it is only by a study of the embryogeny of the tissues from which these tumors are derived that we gain any satisfactory comprehension of the why and wherefore of these peculiar characters.

Here let me point out that, employing the terms here introduced, based as they are upon the embryogeny of the different tissues and the tumors derived from them, we may allow the terms "carcinoma" and "sarcoma," to revert to their earlier and purely histological significance. And I would emphasize, that it must not be understood that these terms, carcinoma and sarcoma, are to be regarded, and are by me regarded, as being synonymous with "atypical lepidoma" and "atypical hyloma" respectively. Rather, I would lay down that, accepting this nomenclature, we may safely speak of any tumor of the aberrant glandular type as carcinoma, whether it be of epiblastic or mesothelial origin, and any tumor of aberrant and so-called embryonic connective tissue type, as sarcoma, whether derived from the mesenchyme, the epiblast, *e.g.* glio-sarcoma, or even from the endothelium or mesothelium.

Of late years there has been an ineffectual attempt to restrict these two terms. Thus, many authorities have refused to speak of malignant adenomata of the kidney and suprarenal as being true carcinomata, and others have strenuously opposed the employment of the term gliosarcoma. Nevertheless, the same authorities, while refusing to speak of a cancer or carcinoma of the kidney, freely refer to carcinoma of the uterus, although, like the renal tubules and the suprarenal, the uterine mucosa is of mesothelial origin. In short, it has been proved impossible to employ these terms with embryogenetic limitations, and this introduction of a nomenclature, which is based upon embryogeny, ought, if accepted, to permit us to use them, as they ought to be used, in the purely histological sense.

It will be seen that I in no sense urge that (were it possible!) the use of these terms be done away with. For routine clinical purposes they are

most valuable. When a tumor has assumed a carcinomatous or a sarcomatous appearance it is coincidentally locally malignant, if not in all cases generally malignant also. The terms, therefore, have a clinical significance and value. Only, let me repeat, they are valueless for purposes of relationship and classification and must bear no embryogenetic signification.

To explain these peculiarities of lepidomatous tumors, let me point out that:

1. After the embryonic period, it would seem that hylie tissues never take on lepidic characters. We have no instances, that is, in which, after embryonic life, we recognize that lining membranes or glands become differentiated from connective tissues.

2. It is generally held that the converse is also true.* With regard to tumors we find the same principle evidently in operation.

3. We may confidently lay down that all tumors and portions of tumors, containing cell layers or cell groups of the lepidic type, have been derived from pre-existing lepidic tissue. Possibly this so-called principle is more of the nature of a postulate than of a proved law; we take it for granted, and may not be able to prove our position in every case. We have, that is, fairly numerous examples of neoplasms of lepidic type, developing in situations in which normal lepidic tissue is not present—adenomatoid tumors of the bone, gland-like follicles in the midst of uterine fibroids, cysts, or tubular spaces lined by cubical or columnar epithelium in gliomata—and the list might be lengthened.

In by far the larger number of cases of this order, either the structure of the tumor so conforms to known neoplasms, the origin of which has been traced positively to some glandular organ, that we are convinced that the growth has originated from the inclusion of a portion of such glandular tissue, or we recognize that the growth occurs in some region, in which, during fetal life, there has existed some duct or portion of lepidic tissue, in a region, likewise, in which in the adult we occasionally encounter the persistent remains of the same. But pathologists, I believe without exception, agree to the sense of this postulate; we may not know, in all instances, what is

* True, that is, until Beard's rather startling observations upon the origin of leucocytes is confirmed. According to this observer the first, and indeed the main development of leucocytes is to be found as a process of proliferation and metamorphosis of the hypoblastic epithelium of the follicles of the fetal thymus gland. Beard's observations were published eighteen months ago, but to the best of my knowledge they still lack confirmation. Leo Loeb, also (*Arch. f. Entwicklngs. Mech.*, 1898, Bd. vi., and *Medicine*, April, 1899), has thought to see connective tissue cells undergoing origin from the Malpighian layer of the skin: his observations have not gained acceptance. In lower forms of life, however, some definite cases have of late been brought forward of regeneration of hylie from lepidic tissues.

the original tissue from which a heterotopic glandular tumor has had its origin, but we are absolutely sure that that original tissue giving rise to a glandular tumor has not been of the connective tissue type. We may therefore, I think, lay this down with confidence that tumors in which the cell arrangement is of the lepidic type, presenting columns or groups of cells, devoid of any stroma between the members of these columns or groups, have been developed from one or other lepidic tissue, and not from one of the hylic or pulp tissues.

4. We cannot, with equal confidence, make the converse statement, that tumors of the hylic type have always originated from hylic tissues and not from lepidic.

4a. I believe that I am right in stating that lepidic tumors of epiblastic and hypoblastic origin, however rapidly they grow, however extensive and distant be their metastases, always even in their most aberrant portions, retain lepidic properties. Wherever two or three of the specific cells of such a tumor are gathered together, they form alveoli with no stroma and no interstitial capillaries. To the best of my knowledge, no case is on record in which it has been satisfactorily proved that peripheral or metastatic growths of a typical carcinoma of epiblastic or hypoblastic origin have assumed definitely sarcomatous characters.

Possibly the careful studies now being made, in connection with the melanotic tumors originating in connection with the skin, may prove that this statement will need eventual revision. Authorities are still so much divided, as to the exact origin of sundry tumors of sarcomatous type belonging to this group, that it is not possible to make an absolute statement concerning their origin. If, however, it can be proved that under certain conditions, tumors originating from the malpighian layer of the skin can in their growth lose their lepidic characters, *i.e.*, can become possessed of a definite stroma passing between the individual cells, then we shall have to acknowledge that epiblastic lepidomata can, in the course of their growth, revert to a more undifferentiated sarcomatous type.

In one very interesting tumor of the prostate, examined by me some years ago, I was for a time of opinion that I could recognize such a transition. Sections taken from the prostate itself, showed beautifully the existence of a very typical carcinoma almost scirrhus in appearance; passing towards the bladder the type became that of carcinoma simplex. The abundant, apparently rapid growth, forming a projection into the bladder itself, was so wholly cellular as to resemble a round-cell sarcoma, but more careful examination showed that even here the cells were arranged in alveoli, although the stroma between the individual groups was so delicate as to be traced with considerable difficulty.

4*b*. With mesothelial and endothelial lepidomata the same is not always so; the older or earlier portions of the tumor may show distinct adenomatoid or carcinomatoid characters—occasionally the whole tumor is typically adenomatous; but more rapidly growing portions are peculiarly liable to depart so far from type, so peculiarly liable to take on the appearance of embryonic connective tissue, that it becomes impossible, basing our terminology upon histological appearances, to say whether we are dealing with a carcinoma, or a sarcoma, or a mixed growth—a carcinoma sarcomatodes, or a sarcoma carcinomatodes. More particularly the increased recognition of the frequency of endotheliomata and peritheliomata has forced us to see the difficulties in our present mode of classification. The perithelioma when developing characteristically, apparently as an endothelioma of the perivascular lymphatics, may strongly resemble an adenoma in the regular columnar arrangement of its cells, and yet other parts of the same tumor may be absolutely sarcomatous in type. And while the ordinary endothelioma, such as one so commonly meets with, forming tumors in connection with the membranes of the brain, is in general characteristically sarcomatous in structure, areas to be detected here and there, indicating its origin as a squamous proliferation of the lymphatic or blood vascular endothelium. Without, I trust, taking anything from the interest and value of his forthcoming article upon this subject, I would here note that Dr. P. G. Woolley, Fellow in Pathology at McGill University, has just completed a most elaborate and minute study of a tumor, originating in the zona fasciculata of the suprarenal, in which a similar transition from adenomatoid to purely sarcomatous structure is to be followed without the possibility of doubt.

Here, then, are tumors which, showing in the least aberrant regions, indications of origin from a lining membrane or lepidic tissue, are apt to take on the appearance and structures more characteristic of "pulp" tumors.

Now this difference in behaviour between the epilepidomata and hypolepidomata on the one hand, and sundry of the mesotheliomata and endotheliomata (mesolepidomata) on the other, is but consonant with embryological observations and the broadest biological principles. One great principle which we see constantly in evidence, is that those structures and properties which are of oldest acquirement are those which are last to be lost; it is the most recent acquirement which tends to be the earliest to disappear. We see this exemplified continually in connection with the blastomata. The more rapid the growth—the more the cells of a tumor depart from their normal mature environment—the more do we observe

that those features of the tumor cells, which are specific for one or other tissue, tend to disappear. In the most rapidly growing and most aberrant tumors, the individual cells afford us little or no clue to the tissue of origin. It is the general arrangement of the cells that aids us in making our diagnosis, and even the general arrangement is not so much that peculiar to the fully grown tissue, as that common to connective tissues in general, or to glandular or lepidic tissues in general. We recognize a reversion to an earlier, simpler, or, we express it, embryonic type. As I have pointed out elsewhere a distinction must be recognized between the functional and the proliferative, or vegetative, activities of cells; the essential feature of the cell of the atypical tumor is the replacement of functional by vegetative activity, and the consequent loss of those features which are directly associated with the performance of function.

I would now suggest that we carry the working of this principle a little farther back. The first lining membranes to be differentiated are the epiblast and hypoblast: their differentiation, indeed, is one of the earliest events in developmental history; and this being the case, we should expect—and we find—that tissues, whether normal or neoplastic, derived in direct line from these two layers, are singularly tenacious of their properties as lining membranes, and so it is that epilepidomata and hypolepidomata always show evidences of their lepidic nature. We should not expect—and we do not find—that where this direct line has been departed from, where, for example, hypoblast has given off masses of cells to form mesoblast, and the epiblast similar masses to form the neuroblast, that, in reversion, tissues derived from mesoblast and neuroblast respectively, should again enter upon the lining membrane stage. Where in the process of development an organ or part is formed by the cells of tissue of a higher order assuming a less differentiated condition, and from this lower state proceeding to develop along special lines, we do not find that in reversion and degeneration that tissue passes beyond the less differentiated stage, and then proceeds to show characters of a primary more differentiated condition. Thus it is that the mesenchymatous tumors and sarcomata in general show no tendency to assume lining membrane or lepidic characters, even though, without exception, all these tissues have primarily arisen as derivatives from either epiblastic or hypoblastic lining membrane.

If occasionally in gliomata we find cysts lined with columnar epithelium, this is not an example of such reversion to the more primitive epiblastic characters of the glial tissue. Those who have studied cases of this order have, without exception, ascribed such conditions to inclusions of rests of embryonic tissue containing portions of the *anlage* of the central nervous canal.

But now, coming to the mesoblast, we know that it is at a later date in the history of the embryo that this becomes differentiated into mesothelium and mesenchyme, and the development of the mesothelium is in the direction of increased specialization. Thus we should expect—and we find—that in processes of a reversionary type these more lately acquired characters are more capable of being lost, so that growths formed from organs of mesothelial origin are more liable to pass back and to assume characters approaching those of the primitive mesenchyme and mesoblast, than are growths from hypoblastic and epiblastic organs to revert to what we might term the morula stage. And if it be correct to regard the endothelium as a still later development from the mesenchyme, then we can understand how it is that endotheliomata are peculiarly liable to take on the characters of the primitive pulp tissue from which endothelium became differentiated.

Israel (*loc. cit.* p. 668) recognizes fully this same dependence of the characters of the endotheliomata upon the embryogeny of the mother tissues, for he remarks (the italics are mine): "*Diese (endotheliale) Deckzellen haben sich nicht unter allen Umständen in ihren Eigenschaften von diejenigen ihrer, Inter-cellularmasse bildenden, Stammes genossen soweit entfernt, dass auch sie gelegentlich wieder befähigt würden, Inter-cellularmasse hervorzubringen, deren Qualität von den ererbten Eigen thümlichkeiten abhängig ist. . . . Gelegentliche Vorkommnisse in den endothelgeschwülsten und auch bei gewissen entzündlichen Neubildungen zeigen, dass die Fähigkeit Inter-cellular substanzen zu produciren, manchen in Tumoren gew achsenen endotheldescendenten, nicht unwiederbringlich gegangen ist wie den Epithelien. Das ist aber auch der für die Diagnose praktische bedeutsamste unterschied endothelialer krebsse gegenüber den epithelialen, und er macht von allem die Uebergangs formen vom Epitheliom zum sarkom verständlich.*"

I am far from saying that this is the one and sufficing cause why certain orders of the mesolepidomata have this marked tendency to assume more sarcomatous characters. I do not think that this is everything; nevertheless it does, I think, materially aid us to understand why this peculiarity in the progressive development of these tumors manifests itself; it is one factor. Indeed, it is not all the mesolepidomata which present these same tendencies. To give one example: we never, to my knowledge, find that carcinomata of the uterus, either in their more rapidly growing parts or in their metastases, show other than well-developed cancerous structure. In fact, there is singularly little distinction to be drawn between the characters of cancers originating from the uterine mucosa and those of epiblastic and hypoblastic origin. The same is

true with regard to the tumors of the Fallopian tube. And, so far as I see, we have to lay down also that the high grade of specialization and differentiation of the lining cells of a membrane is accompanied, *pari passu*, by a lack of capacity to undergo reversion to the simplest type. While, for example, the glial cells are apt to undergo rapid proliferation and form tumors of a simple cellular type, true neuromata are extraordinarily rare, and in general we may lay down that the high degree of differentiation which has been reached by the neurone has taken from it, to a very large extent, the power of proliferation. This is, it is true, an extreme example. The cells of the uterine mucosa are not nearly so highly differentiated; they are, however, distinctly more specialized than are endothelia, and the cells lining the serous cavities. And, I would add, more differentiated than, for example, the cells of the cortex of the suprarenal, which but attain an arrangement in solid columns resembling that seen during the process of development of certain other glandular organs.

Thus it may be that simplicity of type is one factor determining why certain tumors revert from a more carcinomatous to a more sarcomatous structure. I mention this as a possible factor, and would not dwell too strongly upon it; rather I would admit, and that willingly, that here we are in the region of analogy and hypothesis. Just as we are unable to explain why in one case, in a given organ, we have produced, for example, a relatively benign adenoma; in another, in that same organ, an actively growing and malignant carcinoma; so it may be that full consideration will show that here also we have to recognize, without possibility of explanation, that, in connection with tumors of one organ, the lepidic properties are retained with remarkable persistence, while in tumors of another organ, derived from the same cell layer, these same properties are lost with comparative ease. But it seems to me not without its use, to point out tentatively a possible factor in the development of the different properties of different tumors. As a group it has to be admitted that mesothelial and endothelial tumors exhibit this tendency to assume a more sarcomatous appearance.

We are thus justified in separating lepidomata into two main divisions,—the primary lepidomata, wherein we include the tumors derived from tissues of direct descent from the epiblast and hypoblast, and the secondary or transitional lepidomata, which include tissues of indirect descent from the same, and which may as a consequence show what I may term transitional characters. Making this division, I leave it open as to whether we speak of the tumors of the first order only as the true carcinomata, and refer to those of the second order as at

most carcinomatoid, or speak of all tumors of what I may now without confusion refer to as having lepidic characters, as being carcinomata. My preference, as I have already stated, is for employing this term purely in a histological sense.

Recognizing that many years have passed since I was engaged in the active study of embryology, I have not ventured to publish this paper without consulting those most capable of pronouncing authoritatively upon the embryological problems here involved; and I would here express my sincere thanks and sense of deep obligation to Professor Charles Sedgwick Minot, of Harvard, and Professor Carl Huber, of Ann Arbor, for their most kind criticism and suggestions in connection with the views here elaborated. I very gladly acknowledge also that I owe more particularly to a correspondence with Professor Huber, now some months ago, my recognition of the importance, from a pathological point of view, of distinguishing between the mesothelial and mesenchymatous derivatives of the mesoblast.

ABDUCTOR PARALYSIS OF THE LARYNX.*

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In presenting the subject of abductor paralysis again for your consideration, and keeping in mind the paper read before you in 1900 by Dr. Norton L. Wilson (1), I may premise by apologizing that I have nothing new to add with regard to etiology or treatment. Only two cases have presented themselves to me thus far, but as one of these has been under observation for over four years, and as it exhibits some doubtful points in diagnosis as well as other points of interest, I may be pardoned for bringing the subject under your attention.

Both of my cases have been males. The first presented himself on the 28th of May, 1898, at St. Michael's Hospital, suffering from marked dyspnea. At the age of 18 the patient had suffered from a slight attack of gonorrhea, and from what may have been a chancre. There is an indefinite history of the appearance of four gummata, one on the left temple, but there was no appearance of swelling of the glands, or of a rash upon the skin at any time. It would seem that a diagnosis of syphilis had been made at that time, as the patient states that he was treated for nine months with blue pill and sarsaparilla. From that time on he appears to have been thoroughly healthy and well. At the age of 26 he married, and became the father of four children, all of whom have been healthy from birth.

Two years ago, that is to say thirty-seven years after the chancre, the present disease manifested itself. For the first twelve months all that was noticed was a numbness along the outside of, and in the heel of the left foot. Eight months ago he noticed a numbness in the tongue, similar to that of the feet. This numbness spread to the left side of the nose and cheek, and most of the left side of the face. Three months later hoarseness developed, gradually increasing, while the voice became noticeably weaker. Two months ago swallowing became difficult for the first time, and this was accompanied by a tendency toward the regurgitation of fluids through the nose. Respiration also became noisy, and somewhat difficult, especially on exertion. During the past six years there has been a loss of weight, amounting to 35 pounds, and night sweats have not been uncommon. At the present time he has a sensation of walking on wool, equally in both feet. The legs

* Read before the American Laryngological Society at its meeting in Washington, D.C., June 3rd, 1902.

are also numb, and the patient has great difficulty in keeping his feet and legs warm. The left side of his face, the lips and the chin, and the tongue are numb, and he does not use the left side of his mouth in chewing his food. Swallowing is performed without any pain or difficulty. The respiration is very noisy, the chief difficulty lying with the inspiratory movement. The noise becomes worse when the patient is sleeping, which he does very soundly, and in the prone position. The character of the breathing at night is best described by the statement that the only person upon the flat upon which he is quartered, who has been able to sleep since he was admitted, is the patient himself.

Prior to his entrance into this hospital the man had been under charge of Dr. McDonagh, in the General Hospital, for a month, and an operation advised but refused.

I am indebted to my colleague, Professor Anderson, for the following account of the patient's general condition.

These notes on the patient's general condition were made on June 4th, 1898, a few days after tracheotomy by Dr. Wishart.

The patient is a man of good physique, but rather emaciated, weighing 135 pounds; has a nervous, rather anxious expression. Heart and circulatory system are normal, pulse 84. Chest is well formed, though there is slightly increased depression in the supra-clavicular and supra-sternal fossae. Physical examination discovers nothing abnormal, chest movements free and easy, respirations 24. Alimentary system—no difficulty in swallowing at present, though a short time previously food had regurgitated through the nose. Digestion is good and the bowels are regular. Genito-urinary system—patient has had incontinence of urine which dribbles away from him, with his being able to feel it passing through the urethra. Examination of the urine reveals nothing abnormal, no albumen and no casts. There is loss of sexual power. Nervous system—there is marked loss of sensation on the left side of the face from the forehead to the chin, also on the left side of the lips and tongue. The left temporal and masseter muscles show great atrophy; he has little power to bite with the left side of the jaw; cannot whistle from inability to approximate the lips; the tongue is protruded straight and shows no atrophy. Sterno-mastoids are normal. Hearing is not impaired. Sight is good, though the eyes tire readily. Patient has diplopia; pupils are of medium size and equal, they react sluggishly to both light and accommodation. There is no loss of power in any of the ocular muscles. Patient complains of a feeling of constriction about the lower part of the abdomen, also severe darting pains through the lower extremities. Has a peculiar

feeling in the feet, as if walking on springy rubber, and he also complains of coldness in the lower extremities, and tires readily on walking. There is no evidence of atrophy. The shooting pains are not constant and are worse at night. Ordinary sensation is lessened in both the feet and lower half of the legs in front and behind. Muscular sense is good. Patient says he has to steady himself to prevent falling when washing his face. On standing with the feet together and the eyes closed, he sways very much from side to side, but does not fall. There is considerable inco-ordination of the lower extremities in walking, the feet being thrown out and brought down with more force than normally. He has had much difficulty in attempting to walk in a straight line. The knee jerk is lost on both sides completely, even after reinforcement. There is no tremor of the lips, facial muscles or hands, and no inco-ordination in the upper extremities, or evidence of other trouble.

The examination of the larynx showed the vocal cords lying almost in apposition, or what may be styled the position of phonation. In expiration they appeared to be pushed apart, chiefly through a yielding of the right cord by the force of the breath, while in inspiration they sagged somewhat and came closer together. There was no lesion of the larynx, and the color was normal, sensation being somewhat diminished. The voice was hoarse and coarse, speech being free so long as the air in the lungs held out, when the patient paused and made a forced inspiration accompanied by a marked elevation of the shoulders. This exertion was painless but fatiguing. The facial expression indicated considerable anxiety.

Immediate operation was decided upon, and tracheotomy performed two days later, considerable difficulty being experienced with the anesthetic owing to the inspiratory effort. The incision was made below the isthmus of the thyroid. A tube has been worn constantly ever since (over four years) to the entire relief of the patient, who has had, however, several uncomfortable experiences owing to the tube having accidentally slipped out, the sinus showing at the same time a marked tendency to contract.

Coincident with the operation, that patient was put upon strychnia and arsenic, and a mixture of iodide of potash and mercury. Three weeks later the latter mixture was reduced owing to symptoms of salivation. The patient was kept in the hospital for over four months, during which time he gained considerably in weight and appearance, but complained of an increasing sensation of loss of power in the lower jaw. When he was discharged from the hospital he weighed 140 pounds. Examination made May 31st, 1902, by Professor Anderson.

Sensation on the left side of the face is practically normal. The atrophy of the left temporal and masseter muscles is much less marked, and the patient can bite well with the left side of the jaw. The ocular movements are perfect: no reduction of the visual field: left pupil is slightly larger than the right; both pupils react to light and accommodation, but still sluggishly; no mystagmus. Tongue is protruded straight, and there is no atrophy of its muscles. Shooting pains are much less marked in the lower extremities. Numbness of feet continues, though inordination of the lower extremities is much less marked. Patient still sways considerably on standing with the eyes closed, but less than when last examined: knee jerks still completely absent; no muscular atrophy. The incontinence of urine continues, though the patient says he can now feel the urine passing through the urethra. Bowels are normal. Weight 176 pounds.

At the end of last week I was fortunate enough to be able to make another examination of the larynx of my patient. Speech was as clear, if not clearer than before, although he fancied that at times his voice was somewhat thicker, and enunciation not so clear. The vocal cords are not lying in apposition, but are separated about one-eighth of an inch throughout their entire length, coming together in phonation. In inspiration there is a distinct lagging of the cords towards each other, and no perceptible movement of abduction could be made out. The position of the cords is not cadaveric but perhaps points to a weakening of the power of abduction. When the finger was placed over the mouth of the tracheotomy tube patient stated that he breathed with more ease than formerly.

Diagnosis: Tabes dorsalis with bilateral involvement of the bulbar, nuclei of the spinal accessory and unilateral involvement of the facial, trigeminal, and slightly of the oculo-motor nerves.

While some of the classical symptoms of locomotor ataxia, as the Argyle-Robertson pupil, are absent, and while the improvement in the patient's condition to so considerable an extent is unusual, still the absent knee jerks, Romberg's sign, the lightning pains, the altered sensations in the feet, slight inco-ordination and the bladder symptoms, occurring in a patient with a previous history of syphilis, are sufficient to justify this opinion.

In his last edition McBride (2), after re-stating Semon's well-known law, "that paresis confined to the abductors is commonly, if not always due to organic changes in the pneumogastric or recurrent trunk, or in the medulla," goes on to say that having had access to the manuscript of a work now in

preparation by this painstaking investigator, he (McBride) feels inclined to doubt whether any incontestable evidence can be brought forward as to the existence of laryngeal paralysis due to organic changes affecting the nervous system, and confined to the abductors alone. I am not aware that the work above referred to has issued from the press, at any rate I have not had access to it, but I believe we are safe in assuming that the conclusions above quoted are correct, and represent the sum of the opinions of the leading investigators of the day. While it is true that the statement of this law has met with great opposition from such observers as Herr Grossman (3), the conclusions above referred to would seem to be still soundly enough established.

It is not in my power to show anything in connection with my cases that will throw any light upon the rights of the spasm theory of Krause, or upon that of Semon as stated above. Perhaps, however, if I can manage at some future date to obtain a *post mortem* examination upon this case, and to observe its progress from time to time, up to that date, something may be brought to light that will be of service. So far as we have gone, however, we have certainly here a primary purely abductor paralysis, which continued stationary (laryngeally speaking) for over three years, thus seemingly confirming the statement that any lesion which affects the motor fibres of the larynx tends to involve the abductor fibres first. On the other hand, the conjoined disorders of the other nerve centres point strongly to a bulbar origin for this paralysis.

The following opinions would tend to favor the view that the causal condition in this case is tabes: McBride (2), after enumerating some twelve different conditions, in which double abductor paralysis may arise, goes on to say that when it is met with as a comparatively stationary condition locomotor ataxia or the cerebro-spinal affections are the probable cause. Lennox Brown (4) considers that "it is essentially the product of tabes," but when "it is due to disseminated sclerosis, or progressive atrophy, there is a tendency towards complete recurrent paralysis." The tendency here mentioned has not been present in my case so far, the cadaveric position not having been assumed by the cords. On the other hand, Bosworth (5) seems to consider that the blood poison in syphilis is productive of a local ankylosis of the crico-arytenoid joint with fixation of the cords in the mid-line. The history in this case points undoubtedly to syphilis, but I cannot look upon the crico-arytenoid joint as to blame for the position of the cords. Again, we are informed by Lennox Brown that where bilateral paralysis arises from a central, or peripheral cause,

the commoner condition is one of incomplete abduction of one cord, and of complete abduction of the other. Repeated observations have failed to bring this out in my own case, unless the more marked yielding of the right cord in expiration, referred to above, is in evidence.

In discussing the operative treatment of this case, in my opinion there is very little to be said in favor of either intubation or excision of the vocal cords. The former can surely only be a temporary measure at best, used to avert the sudden death which has occurred in some of these cases, and manifestly intubation would in my first case soon have required to be followed by tracheotomy. The operation of excision of the vocal cords, depriving the patient as it does of all power of speech, and condemning a man to eternal silence, is surely not to be weighed in the balance with the trifling discomfort of the constant wearing of a tracheotomy tube. The external part of the tube can easily be concealed, especially if the low operation is done, and the size of the tube selected should always be small enough to allow of the free passage of air along its sides through the larynx itself.

Resection of the recurrent laryngeal nerves, as advised by Geronzi (8) may be justified if the causal disease is steadily progressive, as by this means the so-called cadaveric position of the cords will be attained and respiration made safe and easy, but the surgeon necessarily must hesitate to make use of this operation where there is any prospect at all of recovery.

In this instance the Semon's (7) indication for early tracheotomy, namely, "when the objective widening of the glottis cannot be attained by treatment within a short time," was certainly present.

With regard to the medication, as both iodide of potassium and arsenic were used, it is impossible to determine to which credit is due, but it is well to remember that Gower states emphatically that anti-syphilitic remedies are absolutely useless in the treatment of tabes.

The Faradic current advised by Newcombe (6) was not employed.

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THE KING'S ILLNESS.

THE "LANCET'S" COMMENTS.

The solemn and magnificent rite at Westminster Abbey which was to set the symbol of sovereignty over a vast empire upon the brow of one whose career as Heir Apparent had fully qualified him for the higher dignity and responsibility of kingship cannot, alas, at present be performed, for the central figure in the ritual lies upon a grievous bed of sickness. The deep anxiety of his subjects in the critical position in which their ruler is now placed is marked on every face. He has convinced his people of his zeal for their welfare and of his ability worthily to uphold the traditions of the throne. Throughout his life he has not only performed with exactness and willingness the duties that came in his way as the natural consequence of his position, but he has sought work and done it in many directions, for the good of those whom he was to reign over. This is known to all, and as we acknowledge the influence of the powerful and practical sympathy which has ever been displayed by His Majesty with sickness and suffering, our hearts go out to him on his bed of pain. We need hardly remind our readers of such recent incidents as his presiding at Marlborough House over the foundation of the National Association for the Prevention of Consumption in July, 1898, or of the keen interest which he has evinced in the investigation into the causes and possible prevention of the dreaded scourge of cancer. In such matters as these his has not been the perfunctory intervention of an exalted personage; his grasp of the subject has been real and his action judicious and effective. He has acted obviously upon deeply moved feelings and we may be sure that in his turn, now that he has been struck down by illness, he is receiving from his people no mere loyalty of lip-service, but the truest and most affectionate sympathy.

King Edward's fellow-invalids of all sorts and conditions have particular reason to bless his name and to pray earnestly for him in his hour of trouble. In 1897 Her Majesty Queen Victoria celebrated her Diamond Jubilee, when her eldest son found himself called upon to assist the decision of her subjects as to how they might best commemorate the occasion. On the sixth of February the newspapers contained a letter signed by His Royal Highness, which inaugurated the Prince of Wales' Hospital Fund for London. King Edward in that letter exhibited the warm-hearted feeling for the needs of his poor subjects, the appreciation of the demands of the occasion, and the business-like grasp of detail that have always been prominent in his actions and utterances. He showed that he knew well that the fittest object on earth for assistance of every sort—ungrudging, open-handed and immediate—is the sick man whose purse cannot command adequate medical attention,

suitable diet, or a proper environment. By his prompt recognition that the sick poor of the metropolis constituted a class with paramount claims upon him, as the figurehead of the kingdom, he proved himself to be at the same time observant, practical, and tender-hearted. It is not only, moreover, with his more conspicuous actions that the medical profession associates the zeal of King Edward in the cause of the sick and the suffering. Over and above aid given in the raising of funds on behalf of individual hospitals or by ready participation in the opening ceremonies that inaugurate new buildings, new wings and new wards,—besides all these, there have been acts of kindness and individual sympathy that have won hearts even more completely because fewer have known of them. There have been visits to hospitals without ceremonial accompaniment, informal inspection of organization and detail, kind words spontaneously spoken but ever remembered by those whose claim upon royal attention lay only in the fact that they were poor and in pain. Instances of unpretending kindness such as these show that amid the conventional surroundings of royalty, the King, and here we should include also the Queen of this great realm, are endowed with a human sympathy that holds nothing human alien to it. To the sweet lady whose smile has inspirited and whose voice has cheered so many of her humble subjects the heart of those subjects goes out to-day in her sore trial.

The king is no stranger to illness and suffering. The deep anxiety felt by this country when he lay upon a bed of sickness more than 30 years ago will still be remembered, as well as the gloom that overshadowed the British dominions when the grave relapse of Dec. 8th, 1871, was made known. Eagerly every symptom of recovery was noted in the constantly issued bulletins throughout the world, and great was the rejoicing that celebrated the Prince of Wales' restoration to health. The country must be prepared to go through a similar period of sickening apprehension. We do not belittle the gravity of His Majesty's condition when we urge that it is quite a common one, relieved daily in our hospitals by just such an operation as has been successfully performed upon him; nor do we magnify its gravity when we say that until convalescence is established every symptom must be watched with the deepest solicitude. In the circumstances Sir Frederick Treves' address on appendicitis, which is published in our columns this week, will have an absorbing interest for our readers. All our surgical records serve to show that much apprehension of evil sequelæ, cannot be justified. In God's hand is the issue.

But to one point in the first bulletin we must draw attention. It is evident that the King fought with the utmost gallantry to

fulfil his great engagement, an engagement the constitutional importance of which is enhanced by its sanctity. Indeed, it is possible that had he not resisted so strenuously the idea of a postponement of the Coronation ceremonies he might have escaped the ordeal of the surgeon's knife. The ceremonies of the Coronation could hardly fail to prove exhausting, even to a vigorous physique. Yet, despite his pain, the King had braced himself to go through with them at all cost, until, fortunately in time to avert a tragedy, nature proved too strong for him. Men of our nation cannot fail to recognize and admire the courage which fought so nearly to the end and despite all risks that the people might not be disappointed. We all love a brave man, and when His Majesty King Edward VII. resumes his place among his people he will find them moved to the depths of their heart in gratitude for his restoration to them.—(Major portion of Editorial, *Lancet*, June 28.)

CRITICISM FROM PHILADELPHIA.

That the King was ill for several days before the operation was well known, but the public seems not to have suspected that he had appendicitis. His treatment and mode of life during those several days certainly did not indicate it. He was allowed a measure of liberty which is not usually accorded to a patient with this disease. A man with acute appendicitis, or "perityphlitis," is not in a fit condition to be crowned king. The medical world will doubtless be wondering how the evil hour was put off so long, and why in the meantime the sick man was pushed along through the preliminaries for the great state ceremonial.

Whatever the issue may be, the case of King Edward will be looked upon as an awful example. Whatever the responsibility for delay may be, and wherever it may rest, the case will be an object-lesson to the world—not soon to be forgotten—of the dreadful disadvantages that come from delay.

We believe that this responsibility does not rest entirely upon the distinguished men who have had the King's case in charge. Statements in the press, which seem to be authentic, indicate that the royal patient himself opposed the operation until the alternative was bluntly stated to him—the knife or death. The circumstances were altogether extraordinary. A nation was waiting for the consummation of a brilliant and exceptional ceremony. There was every temptation to delay and to take chances. The King himself took the chances, and his surgeons should be exempt.

The object lesson to the world will have this value—that it will teach how little is to be gained by delay and how great a peril is incurred by it. We have recognized for a long time

that the teaching and practice in this country on the subject of appendicitis were in advance of those that prevail in Britain. The conservatism there has been extreme. The practice has verged upon timidity. The American rule, we believe, is the better one; and, whether the King lives or dies, this fact will remain proven. If the King lives, it will only be by passing through a great peril which in almost all similar cases can be averted by prompt operation.—*Philadelphia Medical Journal*.

KIND WORDS FROM WASHINGTON.

While most of the extracts and abstracts published in this issue are taken from medical journals, we offer no apology for inserting the following article which appeared in the *Washington Post*, and which we copy from the *Literary Digest*, July 5th :

"Edward has been a noble and high-minded gentleman always. During the long years—almost half a century—of his apprenticeship he has set the example of a genuine chivalry of conduct. With him '*noblesse oblige*' has been more than a mere phrase; it has been a law. An ideal prince, a man no less than a monarch, he has drawn to him not only the reverence but the friendship and affection of his subjects. He has had his intimates like any private citizen; he has mingled freely and unaffectedly with them. The people have known him at close quarters. His virtues and weaknesses have been open to inspection. But from first to last, throughout the long period of his 'apparency,' he has won admirers—made new ties and strengthened old ones—and all this by force of his personal and private qualities. He is beloved and honored, not so much because he is King as because he is a kind, considerate brave and honorable gentleman. There is, beyond all this, something peculiarly pathetic in the untoward consummation which now confronts us. He might have been crowned long months ago had he so willed it. Of course, the coronation would have been a form and nothing more. He was King and he reigned without the celebrations and the mummary which were to have taken place to-morrow. But in reverence for his august mother, whose heart had been broken and whose death hastened by the appalling tragedy in South Africa, he had postponed his coronation until that frightful blot could be erased from England's 'scutcheon. For him, as for Victoria, the bloodshed, the rapine, and the desolation involved in the war upon the Orange and the Transvaal republics poisoned his peace of mind and turned to dust upon his lips the glory of his accession to the greatest throne in Europe. He wished his diadem to be the crown of peace. But heaven has willed it that this kind heart should be denied. There he lies—a poor mortal, sorely stricken and brought low. All the crowns and thrones and sceptres in the world cannot help him now. His chance is the same as any

beggar in the street. His has been a fine and sweet life, nevertheless. His is a stout and gentle heart. We can pray for him as lovingly as though he were a neighbor. What more, in his extremity, could befall the proudest autocrat in all the world?"

CRITICISM FROM BOSTON.

Many American surgeons of the largest experience believe that all cases of appendicitis should be operated upon by the immediate and invariable removal of the appendix. In a case of localized abscess they would never content themselves with simple drainage. Simple drainage in appendicular abscess of long standing and of firm adhesions seems to us, however, the safer and the more reasonable procedure, removal of the appendix being reserved until after the restoration to perfect health. We therefore heartily approve the choice of operation made by the surgeons of the King.

We know but few of the facts in the King's case. We are, however, sure that in a mild attack of undoubted appendicitis which was progressing favorably in a man of sixty, with large abdomen and thick abdominal wall, of unfavorable general condition, we should insist upon the most conservative course of treatment. Even if we knew beforehand that such a patient had an appendix which was to certain degree pathological, we should hesitate a long time before subjecting him to a prophylactic operation. In a case like that of King Edward's, after recovery from the palliative operation, we should long hesitate before advising appendectomy, even if everything was as favorable for that operation as circumstances would admit, hoping either that no occasion for surgical intervention would arise, or, if it should, that the appendix might then be removed in the very beginning of the attack.

It must, we think, be admitted that under no course of treatment, except removal of the appendix in the very beginning, could this particular case have pursued a more favorable course. Indeed, an operation in the increasing stage, when the adhesions were fragile, could hardly have failed to contaminate extensively the peritoneal cavity. Infections of an abdominal cavity loaded with omental and mesenteric fat, in a patient past middle life and of impaired resistance, is, in our opinion, a calamity to be avoided whenever possible, and especially when the disease, constitutionally and locally, is progressing favorably. From all that we can learn of King Edward's case, an operation, had the diagnosis of appendicitis been clear, would have been indicated in the very beginning of the attack, even if that beginning was a mild one; or at any time during the attack, if the symptoms were severe; or when, after progressing favorably, they showed the least unfavorable sign; and, finally, whenever there was positive evidence of a localized abscess,

We do not feel sure that, had he recovered from this attack without operation, the so-called *interval operation* would later have become justifiable without renewed evidence of persistent and threatening disease.

We wish again to congratulate the English people and their sovereign upon the successful efforts of their physicians and surgeons in this most trying case.—*Editorial Boston Medical and Surgical Journal.*

THE RELATIVE MORTALITY UNDER OPERATIONS AT DIFFERENT STAGES OF THE DISEASE.

BY ALEXANDER H. FERGUSON, M.D., CHICAGO, ILL.,
Professor of Clinical Surgery, College of Physicians and Surgeons, etc.

The unfavorable features of the King's case are his mental forebodings, age, reported state of his constitution, and late operation.

Judging from even the meagre data at hand, of operative findings by Treves, and of the post-operative conditions, I am inclined to give a grave prognosis. If he were a beggar instead of a King, I judge that an early operation, within twenty-four hours of onset of the attack, as is our rule in Chicago, would probably have been done and the disease have been thereby promptly robbed of its dangers.

The surgeon whose fingers are in the abscess cavity is the best judge of whether the appendix should be removed then or not. When local conditions are favorable and the patient is behaving well under the anesthetic, the appendix should be removed. I do not think it wise to temporize; once the diagnosis is made, an operation is the only rational and safe treatment for appendicitis. Whereas clinical manifestations do not interpret truly the anatomical changes, or the virulency of the infection, why should we wait? The King's case is an object lesson to the world on appendicitis. It must be remembered that in his case there were extraordinary national and international environments and considerations which no doubt naturally influenced him and his attendants to favor the postponement of surgical aid, and in the meantime to avoid it if possible. It is evident that at the beginning of the attack and for a few days thereafter the symptoms and signs were not alarming, and herein lies the deception in appendicitis. This we all know. The symptoms improve, and then light up again as they did with the King.

It may now be said that His Majesty has survived the immediate effects of the operation, and if no complications

arise to interfere with his resisting powers or to check his normal elimination, the prognosis is fair.

In their trying positions and treatment of their distinguished patient the surgeons have my sympathy and approval.—*Abstract New York Medical Journal Telegraphed, June 26th.*

THE CHANCES OF RECOVERY DEPENDENT UPON THE
CHARACTER OF THE ABSCESS.

BY JOHN B. MURPHY, M.D., CHICAGO, ILL.,
Professor of Clinical Surgery, Rush Medical College.

The official bulletins are very vague and indefinite, as the doctors do not state whether the perityphlitic abscess was due to appendicitis, carcinoma, or perforating ulcer. If it is an appendiceal perityphlitis, opened and drained with no attempt at removal of the appendix, his chances of recovery, allowing for his age and mode of living, should be 97 per cent. Even if there is gangrene of a small area of the cecum from a peri-appendiceal abscess, his chances of recovery should be good unless the infection is very virulent. One would infer from the mild symptoms on the day previous to the operation that it is not virulent. If the perityphlitic abscess is from a perforating ulcer of the cecum, the prognosis is more grave, for these perforating ulcers are grave in themselves, particularly the tuberculous. If the perforation occurred from a malignant ulcer, his chances of recovery would be very meagre, as a resection of the caput coli would be demanded, and this is such a long and grave operation that he could scarcely withstand it, as it would involve an immediate risk of from forty to forty-three per cent. The assumption that the abscess is of appendiceal origin is the most logical, judging from the symptoms of pain and syncope on the fifth or sixth day preceding the operation, and there was every reason for his physicians withholding information from the public as long as possible. If the diagnosis of appendicitis had been made early, it is probable the operation would have been performed immediately, as the consensus of opinion of the American medical and surgical profession is that the immediate operation, *i.e.*, operation within the first twenty-four hours after the onset of symptoms, gives the best results and subjects the patient to the least risk. There is a unanimity of opinion in the profession that no one, no matter how familiar with the disease, is able to predict from the early symptoms what will be the subsequent course of the disease. It is therefore incumbent upon the profession to operate early to avoid the probability of later and most dangerous pathologic conditions.—*Abstract New York Medical Journal Telegraphed, June 26th.*

THE CASE OF THE KING IN THE LIGHT OF HIS PREVIOUS
MEDICAL HISTORY.

By ROBERT F. WEIR, M.D.,

President of the New York Academy of Medicine.

Perityphlitis or, as it is known here, appendicitis, can be divided in its results into 3 classes: (1) Those where the operation is done within 36 hours (which is the period of election), after the inception of the disease, where the mortality is under 3 per cent.; (2) where done from that time to the fifth day where the mortality is from 4 per cent. to 15 per cent., and the most critical judgment has to be exercised by the surgeon in respect to the time of operation; and (3) those operated on after the period named, when the disease often limits itself to a circumscribed abscess, where the mortality after operation again markedly diminishes.

In the present instance which occupies the attention of the whole world there is a factor that has not been alluded to. In an ordinary case after the existence of the disease of a week or thereabouts, with the formation of an abscess, there would be a very favorable prognosis as above detailed, but it is well known in the inner medical circles in London that King Edward has been the subject for several years past of diabetes. It was this complication that decided, some time ago, when he sustained a fracture of the patella, the abstention from an operative treatment, and that it was advisable to resort to the old method of immobilization of the limb, with its risks of imperfect union, rather than to take the chances of the modern and better method of suturing the broken ends of the bone together after an incision.—Abstract *New York Medical Journal*, Written, June 26th.

THE OPERATION MASTERLY IN ITS SIMPLICITY AND
CORRECTNESS.

By ROBERT ABBE, M.D., NEW YORK,

Surgeon to St. Luke's Hospital.

It sounds strange to the ears of American surgeons to have the cable send back the word "perityphlitis" in describing the grave illness and momentous struggle of King Edward. It is like an echo of the early studies and battles that were waged in New York twenty years ago, when that inadequate and unsatisfactory word was displaced by "appendicitis."

Accumulating experience shows that not once in hundreds of operations in this region does the surgeon find any cause for perityphlitis, or inflammation around that part of the intestine, except as a result of a diseased appendix.

The extreme importance of this organ, and the gravity of its diseased condition, have been recognized and studied nowhere in the world as much as in America—and its treatment perfected by a score of able surgeons.

In England no surgeon has kept more nearly in touch with advanced American work than Sir Frederick Treves, personally an intimate friend of some of our surgeons, and known and admired by all through his writings and visits to America. No one can doubt that he has suffered the greatest anxiety in being forced to delay operating, owing to circumstances over which he had no control—until the abscess matured about the diseased appendix.

If reports are correct, that he simply opened and drained the abscess, using rubber tube and gauze, and desisted from search for the appendix, his action was masterly in its simplicity and correctness. A more ardent, enthusiastic, or fearless operator, might have pursued the matter to its finish and secured an appendix as a trophy, but sacrificed his patient. Science and the people may be congratulated that so conservative a surgeon was in control.

The vexed question as to searching out the appendix in such cases, has been one of many in this great problem—and to-day it stands answered as follows. It does no harm for the time to leave it in the abscess wall, so long as the drainage outward is free. The risk of damage by tearing it out when deeply buried, as often is the case, is too great to be excused when life is at stake. In four out of five cases the appendix has ended its own existence by the explosion, as it were, which produced the abscess, and one frequently finds a ragged remnant of the organ hanging free in the abscess. The age factor in a patient of sixty years, so well cared for as the King, is not so much to be dreaded as the public fears.

The greater lesson to be learned from exhaustive study of the appendices taken out after one or more attacks, and during quiescence, is that an appendix once diseased is always diseased and a perpetual menace to its owner.

The King's appendix must have been diseased for many years, whether it gave evidence of it or not.

Insurance companies now debar the victim of one attack from insurance for two years—and of two or more attacks, until the appendix is out. What better argument of the gravity of the subject?—*Abstract New York Medical Journal, Written, June 26th.*

THE CASE OF KING EDWARD.

BY ROBERT T. MORRIS, M.D., NEW YORK,Professor of Surgery, New York Post-Graduate Medical School and Hospital.

King Edward's case appears to be one of appendicitis of a rather common type, following his exposure to chilling winds last week, with consequent engorgement of mucous surfaces. Bacterial infection progressed to the point of abscess formation about the cecum before it was determined by the medical advisers that the King's life depended upon the performance of some emergency operation. Apparently wise counsel prevailed, and the very conservative procedure of simple evacuation of the abscess was chosen. The cable reports lead us to believe that the infective process had been very well cared for by the peritoneum, and that the area of infection was walled-in by the phagocytes. In some cases of appendicitis with the complication of perityphlitis and abscess formation, the appendix is completely destroyed, and the patient escapes the danger of further infection at that point. In other cases only a part of the appendix is destroyed, and sometimes it is left almost intact excepting for scar strictures, and local peritoneal adhesions. In both of the latter cases the patient may anticipate recurrence of appendix infection at some time in the future. Aside from further infective processes, the adhesion complications may become sufficiently important to require operation for their relief at any time during the life of a patient who has suffered such a severe peritoneal inflammation. In addition to new infection and adhesion complications, one must expect also the development of post-operative ventral hernia at the site of an abdominal wound that has been left open for drainage. All of these things could have been avoided by early operation in advance of abscess formation, but we readily comprehend the kind of responsibility that was placed upon the King's medical advisers at just this critical time, and we must believe that they have acquitted themselves in a manner that is most acceptable to responsible medical authorities the world over.

In King Edward's case we are gratified to observe that the anesthetist, the surgeons, and the physicians are all men who have international reputations in their respective fields of work. This is apparently the result of some system in England that does not obtain in this country, where it is rather the exception for a man of great consequence to have well chosen medical advisers, excepting as a matter of accident, and while we are apt to think that European methods in the management of appendicitis are far from being as successful as those

employed in America, there seems to be the compensating advantage that in England a method is adopted for obtaining the services of the best authorities on an occasion of great public importance.—Abstract *New York Medical Journal*, Written, June 26th.

THE SURGEONS AND PHYSICIANS IN ATTENDANCE.

THE RIGHT HONORABLE LORD LISTER.

No man of the empire, no man in the world, has ever received a more cordial welcome from Canadians than Lord Lister. The members of the medical profession of this Dominion were especially enthusiastic over his visit to Canada in 1897. We recognized the fact that we had amongst us the greatest surgeon of this century—the greatest surgeon of all time. We all admire him for the great work he has done for the human race; we all love him for his kindly manner; we all respect him as a hero among men. The whole world is paying homage to Lister for his greatness; and yet he, who has received the highest honors ever bestowed on any man of science, is one of the most modest and unpretentious men living.

SHORT HISTORY OF LORD LISTER'S LIFE.

Lord Lister was born in Essex county, England, in 1827. As a youth he lived in a good atmosphere with his father, Joseph Jackson Lister, who was a Quaker, and at the same time a man endowed with a great love of science. He received the degree of B.A. from the University of London in 1847, and the degree of M.B. from the same university in 1852. During his student life he worked faithfully in the laboratories, carrying out original investigations in physiology and pathology. He was also active in the hospital wards, and was one of the first house surgeons under the late Sir John Eric Erichsen.

After graduating he went to Edinburgh, where he continued his researches in physiology and pathology, devoting most of his time to pathology. While in Edinburgh he became closely associated with the late Professor Syme. In a paper by Dr. Stewart, of Halifax, we learn something about the great importance of Lister's researches for several years in pathology. His results were published in the Transactions of the Royal Society for 1858. He was appointed Regius Professor of Surgery in the University of Glasgow in 1860, and did much of his earlier work in connection with antiseptic surgery in the Royal Infirmary of that city. His work in Glasgow and Edinburgh made him famous, and in the latter part of 1876 he

was induced to go to London to take a position on the staff of King's College Hospital. He entered on his duties there with the distinct understanding that he was to have complete seclusion of his own wards, with a house surgeon, and nurses completely under his control.

At this important time in his career he encountered considerable opposition. Many of the surgeons of London endeavored to belittle his results so far as they were published. Many of those who criticized his methods had no clear conception of the principles underlying his system of treatment. The spray was unduly exalted to such an extent that its use was considered by many to be Listerism, while it was, in reality, only one, and the least important, feature of his treatment. At the same time many of the continental surgeons, especially those of Germany, understood Lister and his methods better than the majority of his confrères in Great Britain. Some prominent surgeons went so far as to state that he suppressed statistics because "he had none that he would not be ashamed to produce." The following is an example of some of the unpleasant things insinuated: "The publication of isolated cases, however good, proves nothing, whereas the withholding of the whole suggests much." These were the words of Mr. Bryant, of London, and were endorsed by Mr. Savory (afterwards Sir William Savory) who quoted them with approbation in his address on surgery, at the British Medical Association meeting at Cork in August, 1878.

While referring to such adverse criticisms, we will quote the following as an example of a very friendly opinion concerning Lister and his methods, from the address of Mr. John Wood, F.R.S., during the discussion of Sir William MacCormac's paper on antiseptic surgery before the South London Division of the Metropolitan Counties Branch of the British Medical Association, December, 1879: "While thus defining the limits of my agreement with my esteemed colleague, Professor Lister, I must take this opportunity of congratulating him sincerely upon the possession of those advantages which have made him so powerful an advocate of antiseptic surgery, and will give him so high a niche in the temple of fame; upon the professional position, which has given him the authority: upon the gifts of fortune which gave him the means; upon the gifts of nature, which gave him, in happy combination,

"The patient thought, the steadfast will,
Resolve and foresight, strength and skill,"

which he has laid upon the altar of suffering humanity."

Lister continued to work with earnestness and zeal, and gradually, but surely, gained ground until he finally triumphed to such an extent that he practically overcame all opposition.

His uniform kindness, and courtesy towards his opponents, did much to secure this happy condition of things. He was able to simplify his appliances in a few years, especially when, in 1885 or 1886, he decided to disregard the influence of atmospheric dust on open wounds, and discarded his spray apparatus. His improvements in these respects did much to popularize his methods in various parts of the world.

Lord Lister is one of our best specimens of the modern, cultured scientific surgeon. Since boyhood he has been diligently searching after truth, and helping others in the same direction. Thoughtful physicians and surgeons, obstetricians, general practitioners, and specialists in all civilized countries have learned something—generally much—from this great and good man. Never in the history of the world has any one man taught so much, and done so much to ennoble our profession. He it was, or such as he, that went to Drumtochty, and performed the operation which saved the life of Tammas Mitchell's wife. It is rather pleasant to have a picture in one's mind of Lister and MacLure driving together through the flood, in Drumsheugh's dog cart, to see Annie Mitchell, "whose life was slowly ebbing away." It is easy to imagine how Lister would tear into fragments poor kindly MacLure's cheque, and how he would hold out his hand as the train was starting, and say: "Give us another shake of your hand, MacLure; I am proud to have met you; you are an honor to our profession. Mind the antiseptic dressings."

Many are the honors that have been literally heaped upon Lister at home and abroad. Great was the delight of the medical world when he was elevated to the Peerage on account of the great services he has rendered mankind by his practical researches, and his clinical work in aseptic and antiseptic surgery. Great was our regret when we understood he was to relinquish the name Lister—the name we had learned to love so well—and become Lord Kinnear. Great was our pleasure when we discovered our mistake, and found that we were not in any sense to lose our Lister, whom we now know as the Right Honorable, the Lord Lister. Many are the ovations he has received outside of Great Britain. One of the most memorable was that which he received at the great International Medical Congress in Berlin, August, 1890. There were seven thousand persons in the Circus Renz at the opening ceremony. When Professor Virchow, attended by a brilliant company of ministers, and other distinguished men, ascended the tribune, applause burst forth again and again as various celebrities came into view; but it was Lister who was met with the most prolonged applause. Again at the first general meeting, when he stood up to deliver his address on Antiseptic

Surgery, he was greeted with applause so long continued that he had to wait some time before he could make himself heard.

Lord Lister's distinguished confrère, Sir Frederick Treves, in a paper on "The Progress of Surgery," during the Victorian Era, published in the *Practitioner* (English) in 1897, speaks as follows about Lister and his work :

"The great feature in Victorian surgery has, it is needless to say, been the introduction of the antiseptic method, and the great name which stands out above all others in the array of Victorian surgeons is the name of Lister.

"Lister created anew the ancient art of healing ; he made a reality of the hope which had for all time sustained the surgeon's endeavors ; he removed the impenetrable cloud which had stood for centuries between great principles and successful practice, and he rendered possible a treatment which had hitherto been but the vision of the dreamer. The nature of his discovery—like that of most great movements—was splendid in its simplicity and magnificent in its littleness. To the surgeon's craft it was but 'the one thing needful.' With it came the promise of a wondrous future ; without it was the hopelessness of an impotent past. It might well have been in Browning's mind when he wrote—

' Oh ! the little more and how much it is !
And the little less and what worlds away ! ' "

—*Canadian Practitioner, Special Lister Number, Sept. 1897.*

SIR FREDERICK TREVES.

Sir Frederick Treves was born in 1853, and was educated at the Merchant Taylor's school, and at the London Hospital. He became a licentiate of the London Society of Apothecaries in 1874, a member of the Royal College of Surgeons of England in 1875, and a Fellow in 1878. He became in due course surgeon to and lecturer on surgery at the London Hospital, and has the distinction of having been the youngest man that ever held a double professorship at the Royal College of Surgeons of England, having been appointed Wilson Professor of Pathology in 1881, and later, Hunterian professor of anatomy. He was surgeon extraordinary to Queen Victoria, and is sergeant-surgeon to the King, and surgeon in ordinary to the Prince of Wales. As consulting surgeon to the South African Field Force with the Ladysmith Relief Column he rendered signal services to the soldiers and the empire, for which service he received the C. B. and the Knight Commandership of the

Victorian Order. His recent promotion to a baronetcy in the coronation list of honors comes at a singularly apposite time. He has done more work on intestinal surgery possibly than any other British surgeon.

SIR FRANCIS LAKING.

Sir Francis Laking took his first diploma as licentiate of the London Society of Apothecaries, in 1869, being an alumnus of St. George's Hospital, London. In 1868 he became a licentiate, and in 1872 a member of the Royal College of Physicians of London. In 1869 he took the degree of M.D. at Heidelberg. He was surgeon-apothecary to Queen Victoria and apothecary in ordinary to her household, as also to those of H. R. H. the late Duke of Edinburgh (reigning Duke of Saxe Cobourg Gotha), and the Prince of Wales. When the latter became King Edward VII. Sir Francis Laking became his physician in ordinary and surgeon apothecary in ordinary. He is apothecary in ordinary also to the King's household, to the Duke of Cornwall and York (the present Prince of Wales) and to H. R. H. the Duke of Connaught. He is a Knight Commander of the Victorian order.

SIR THOMAS BARLOW.

Sir Thomas Barlow became a member of the Royal College of Surgeons of England in 1871. In 1867 he became B.Sc. at London University, M.B. and B.S. with double honors in 1873, and M.D. in 1874. In the latter year he became a member, and in 1880 a Fellow of the Royal College of Physicians of London. He is physician to His Majesty's household, and late physician extraordinary to Queen Victoria; professor of clinical medicine at University College, London, and examiner in the practice of physic to the Victoria University, Manchester, Durham University, and the Conjoint Examining Board of the Royal College of Physicians and Surgeons. He is a Knight Commander of the Victorian order.

SIR THOMAS SMITH.

Sir Thomas Smith became a Fellow of the Royal College of Surgeons of England in 1858. He is consulting surgeon to St. Bartholomew's Hospital, and Honorary Sergeant-Surgeon to the King. He has been Vice-President of the Royal College of Surgeons and examiner in surgery at the Royal College of Physicians of London. He is a Knight Commander of the Victorian order.—*New York Medical Journal*.

THE CAVENDISH LECTURE ON SOME PHASES OF
INFLAMMATION OF THE APPENDIX.*

By SIR FREDERICK TREVES, K.C.V.O., C.B., F.R.C.S.,

Sergeant-Surgeon to His Majesty the King; Surgeon in Ordinary to His Royal Highness the Prince of Wales; Consulting Surgeon to the London Hospital.

THE APPEARING OF APPENDICITIS.

Mr. President and Gentlemen,—Among those circumstances which are remarkable in the history of medicine in the closing years of the nineteenth century, few are more curious than the almost abrupt appearance of the disease now known as appendicitis.

I think that the writing which did more than any other to force upon the medical world a recognition of the true pathology of pericecal peritonitis was the monograph of Fitz, published in 1886.

It may be claimed for this communication that it gave the first precise, detailed, and fully demonstrated account of the disease now known as appendicitis.

THE PART PLAYED BY THE PERITONEUM.

In dealing with the pathology of appendicitis it is desirable to appreciate clearly that the clinical phenomena, which are familiar under the name of "an attack of appendicitis," are due to peritonitis in the region of that organ.

The disease is essentially a variety of peritonitis. Its manifestations, its effects, and its possibilities are those only of peritonitis. Whatever may be the antecedent condition, an attack of appendicitis is not in evidence, and, indeed, does not exist until the peritoneum is implicated.

It is needless to say that this peritonitis is induced by inflammatory changes in the appendix itself; and it was to these primary changes, which are antecedent to an attack, that Fitz first proposed to give the name of "appendicitis."

APPENDICITIS WITHOUT SYMPTOMS.

It is interesting to inquire what symptoms, if any, belong to pure appendicitis—to that uncomplicated inflammation of the appendage which precedes the familiar manifestations of an attack, and which are, in other words, preliminary to the peritonitis.

On this subject, three propositions may, I think, be made:

1. Extensive inflammation of the appendix, leading to great thickening of its walls, to widespread ulceration of its mucous

* Portion of address delivered before the West London Medico-Chirurgical Society on June 20th, 1902.

membrane, and to some degree even of stenosis, may exist without producing symptoms of any kind. This is illustrated by those cases in which attacks of appendicitis appear without a single preliminary abdominal symptom, and also by those forms of recurring appendicitis in which the patient is entirely free from the least consciousness of trouble in the right iliac fossa during the interval between the attacks. Once in removing a simple ovarian cyst I encountered and excised a much diseased appendix of which neither the patient nor her doctor had had any suspicion, and which had caused the former no appreciable inconvenience. There is a disposition on the part of some writers to assume that no morbid changes can take place in the appendix unless they be accompanied by the phenomena of appendicitis in the sense in which that term is usually employed. Thus Mr. Lockwood, in his excellent work upon the pathology of appendicitis, describes an instance in which "the mucosa of the appendix was destroyed and its lumen obliterated by one attack of appendicitis." The organ was certainly found in the condition named in a patient who had had but one attack of perityphlitis, but it is needless to say that the destruction of the mucosa might have been complete weeks and months before the solitary attack set in, since such process of destruction need not be attended by clinical manifestations of any kind. The onset of the attack indicated not the commencement of the destruction of the mucous lining, but the moment at which the peritoneum became involved in the inflammation.

2. In the second place an acute attack of appendicitis may be preceded by occasions on which the patient has minor seizures of pain in the cecal district which are of short duration and irregular appearance. Such an individual will complain of an occasional sharp pain in the iliac region which may "double him up" and, for a moment, make him feel sick and faint. The peculiarly sensitive may actually vomit. There may be some tenderness manifest. There is no rise of temperature and no notable tympanites, and the episode ends in an hour or so, leaving behind an aching or a vague sense of weakness or discomfort in the region of the right groin, and often a troublesome constipation. These little disturbances—known sometimes by the quite unsuitable and indeed erroneous title of "appendicular colic"—depend upon changes in the appendix which are short of actual implication of the peritoneum. In a few it is possible that there is a minute infection of the serous membrane and an infinitesimal peritonitis. The most severe represent an outbreak of appendicitis in miniature. These little attacks may become so persistent as to weary the patient and impair his health: and on several occasions I have removed the appendage, although there has never been a definite "attack

of appendicitis." The organ on examination has now and then revealed a degree of inflammation and ulceration of its lumen which has been actually in excess of that met with in some cases in which there have been definite attacks of the accepted type. Usually the appendix is found to be of normal aspect, but to have its walls stiff, thickened, and ulcerated. Concretions are common, and in an instance or so I have found the organ adherent.

3. In a third series of examples the patient has an abiding trouble in the right iliac fossa which may continue for months, and may or may not be associated with acknowledged attacks of appendicitis. In examples in which there are no such attacks the condition merits the title of true appendicitis because there can be little doubt but that the symptoms are due to abiding gross changes in the vermiform process which have never spread in an abrupt manner to the peritoneum and so have never produced "an attack of appendicitis." These patients are never well. They are the subjects of unending digestive disturbances, of colics, of constipation, and of occasional severe pains. There is often tenderness in the right iliac fossa with a sense of weight or dragging, pain in the right thigh, and a disposition to walk with the body bent. There need be no rise of temperature.

The condition of the appendix in these cases will vary greatly. It may appear to be normal when viewed externally and to be yet inflamed as to its inner coats, it may contain a concretion, may be twisted or bent upon itself, or clubbed at its extremity. In several of these cases I have been surprised to find the little process full of pus. I cannot avoid the distinct belief that in these and other examples of uncomplicated inflammation of the appendix any advance of symptoms from mere discomfort to acute pain implies an advance of the mischief from the inner coats to the peritoneal surface.

Before leaving this subject I imagine it will be generally allowed that it is not possible (except in gross instances) to predict the state in which the appendix will be found from a mere study of the clinical manifestations. Of the futility of such prophecy I have had many examples.

THE CLASSIFICATION OF APPENDICITIS.

On the subject of the classification of appendicitis from the pathological standpoint, I think very little is to be gained by the elaborate divisions and subdivisions which are affected by many in dealing with this matter.

We are at the present day fairly well informed as to the pathology of inflammation of the intestines and its consequences. The appendix is a portion of the intestinal canal, and it

possesses no exclusive pathology of its own. Like the rest of the bowel, its mucous membrane is liable to catarrh, but not to a peculiar catarrh. That catarrh may pass on to ulceration, and the consequences of that ulceration are the same in the appendix as they are in the rest of the intestine. The ulcer may perforate, and the usual results of perforation will follow. The peritonitis induced is in no way a peculiar peritonitis. It may lead to rapid septicemia or to adhesions of various kinds with possible deformity of the appendix, or it may leave no trace behind. The ulcer may heal and may then lead to stricture of the little process, just as it leads to stricture of the bowel. Both the tube and the intestine may give way behind the narrowed part.

The few peculiarities which can be claimed for the appendix are mainly these. It ends in a blind extremity. It favors the formation of concretions. It is liable to gross disturbances of its blood supply from torsion. Its utter destruction leaves no function impaired.

A PHANTOM APPENDIX.

On palpating the abdomen above the right iliac fossa in a patient suspected of appendicitis an elongated body can occasionally be felt which is often mistaken for a swollen appendix. The little tumor is pipe-like and is either vertical or is more usually placed obliquely. The oblique phantom is always found to be external to the vertical one. Over and over again the discovery has been announced of a diseased appendix lying vertically or obliquely in the iliac fossa. When the part is exposed by operation it may be usually safe to assert that the diseased organ will not be found to occupy the site of the elongated body. Indeed, experience induces a great suspicion of the existence of that diseased appendix which is said to be placed vertically or nearly so, and which is so readily felt.

This phantom is due without doubt to muscular contraction. This contraction is sometimes in the outer edge of the rectus muscle, sometimes in the fibres of the internal oblique or transversalis muscles.

It must be remembered that the bowel, the parietal muscles over it and the skin which again covers them are all supplied by the same nerve. Moreover the eleventh dorsal nerve lies just beneath Munro's point and is no doubt capable of being irritated by deep pressure in that region.

THE OPERATIVE TREATMENT OF APPENDICITIS.

Time will not permit the discussion of either the prophylactic treatment of this affection or of the medical management of a case during an acute outbreak. It will be impossible to attempt

more than a hasty review of the treatment by operation, and such review must naturally arrange itself under two headings—the question of surgical interference during an acute attack, on the one hand, and during the period of quiescence which has followed an attack, on the other.

A perusal of the literature of the subject makes the course which the surgeon should take by no means clear. A right estimate of the value of operation in appendicitis and of the right moment of its application is obscured by conflicting statements, by bewildering statistics, and by contradictory propaganda.

There is, indeed, so great a diversity of opinion among surgeons who are qualified to speak with authority that it is difficult to imagine a mediate line of action which will reconcile extremes and provide grounds for common acceptance. Profuse as are records of a kind, we still lack ample and reliable statistics of the general mortality of the disease, of the results of operation during an attack, and especially of the work of those surgeons who urge that the abdomen should be opened in all non-chronic cases as soon as the diagnosis has been made. The last-named operators would justly, in their turn, demand a full return of all cases in which the practice they observe had been ignored. This, again, is not forthcoming.

Hospital statistics are satisfactory only up to a certain point, since they of necessity deal with cases of the most severe type, the cases ill enough to be admitted into the wards. A *précis* of results derived from isolated examples in the various journals is not satisfactory, since it is human to record success and to show little eagerness to acknowledge failure. The best record which could be obtained would be based upon the experience of a number of medical men in large general practice, or upon the systematic records of an army during times of peace. Some general statistics on these lines have been forthcoming, but when the mortality shown has been low, it has been objected that the cases were not true instances of appendicitis, and when the mortality has been high it has been claimed that the slight cases had been omitted from the record.

As the subject is not yet ripe for dogmatic treatment I have ventured to express no more than the opinions which have been forced upon me by my own experience, with the full knowledge that such opinions are apt to be ill-founded.

OPERATION DURING AN ACUTE ATTACK.

The question of surgical treatment during an acute attack has led to greater differences in practice than has any other matter arising out of the treatment of this disease.

The extremes are represented by those on the one hand who

advise abdominal section as soon as the diagnosis is made, and by those on the other hand who would operate only on compulsion, and in the presence of either intensely acute symptoms or the evidence of pus.

The former place the necessity for operating in the same category with the need for interference in strangulated hernia, or perforated ulcer of the stomach, and are particular to claim that a case starting with trifling symptoms may end fatally.

The latter are occupied with the danger of operating during an attack, with the largeness of the proportion of cases which recover spontaneously, and with the evidence that the diseased appendix is most safely dealt with during the period of quiescence.

In the consideration of this vexed question I would venture to bring forward the following points:

1. In the advocacy of what may be termed indiscriminate operation it is misleading to use the expression "gangrene or rupture of the appendix," "perforation of the appendix," and "appendicitis with acute peritonitis," in exactly the same sense as the terms "gangrene or rupture of the bowel," "perforation of the stomach," and "acute peritonitis" are employed in association with urgent operation.

In every case of acute appendicitis of the accepted type there is acute peritonitis. Limited gangrene of the appendix may be recovered from without operation, and without the formation of an evident abscess, and the same may be said of limited perforation of the process. In a large proportion of examples of acute trouble in this organ there is a perforation, although it may be microscopic. I have found a concretion lying outside a ruptured appendix one month after recovery from an acute attack, the affected area having been isolated by adhesions.

I do not wish to minimize the gravity of these lesions, but merely to protest against a course of action being influenced by the misleading use of terms and unjustified analogies.

2. The greater proportion of cases of appendicitis recover spontaneously, and it is probable that the general mortality of the disease—if examples of all grades be included—is not above 5 per cent.

3. Operations carried out during an acute attack are attended with a risk to life which is considerable, and which is probably expressed by a mortality of over 20 per cent. Certain hospital records and collections of cases appear to place the death-rate even higher than this.

4. It must be remembered that relapses may occur after operation carried out during the acute stage. Dr. Mynter incidentally mentions that out of 27 cases so treated there were two relapses. (It is possible, however, that these relapses were due to complications from abscess.)

5. The removal of the appendix during the quiescent period is attended with a very trivial risk, which may be expressed by a mortality of 1 in 500.

Regarding the above propositions as bases for some sort of definite action in the management of the acute case, it has appeared to me that a reasonable course may be established upon some such lines as the following :

(a) I venture to think that our knowledge of the pathology of the disease and its general mortality will not sanction the practice of opening the abdomen in every case of appendicitis as soon as the diagnosis has been established.

(b) Immediate operation is demanded, at the earliest possible moment, in all ultra-acute cases. These cases embrace those very hopeless examples which present from the onset the phenomena of intense infection, and in which it is evident that a very large dose of poison has suddenly been introduced into the system. In these examples death may occur in thirty-six or forty-eight hours. In the same category are also included cases in which the symptoms are on a par—as regards acuteness—with the phenomena attending the perforation of an ulcer of the stomach. In spite of expressions to the contrary, I do not think that these ultra-acute cases are difficult of recognition.

(c) Immediate operation is demanded in every example in which there is reasonable suspicion that suppuration has taken place.

(d) In cases outside those above named, I venture to think that the question of operation may be kept in abeyance for the first few days of the attack, and may usually be left open for decision until the fifth day or after.

I may lay stress upon the fact that the great majority of cases of appendicitis recover spontaneously without either an operation or the formation of an abscess, that the ultra-acute cases are actually rare, and that, relatively to the whole mass of examples of all degree, suppuration may be said to be uncommon.

OPERATION DURING THE PERIOD OF QUIESCENCE.

In a paper laid before the Royal Medical and Chirurgical Society in September, 1887, I ventured to suggest that cases of recurring appendicitis should be treated by the removal of the appendix during the period of quiescence. My proposal was not very enthusiastically supported and it is interesting to note that in the debate which followed the reading of the paper, one physician of great experience stated that he had seen a good many cases of typhlitis, but that none had gone to a point requiring surgical operation.

Since the discussion took place I have removed the appendix during the quiescent period over one thousand times with two deaths. The very trifling risk attending the measure has led gradually to fewer and fewer restrictions as to the condition under which it should be carried out. I venture to think that when any patient has had one definite attack of appendicitis it is desirable that the appendix should be removed as soon as all active phenomena have vanished. While I cannot agree with Lennander that a recurrence is to be anticipated, at some period or another in the history of every case, I think there is no doubt that the balance of probability is in the direction of a second attack.

It is manifest that the risk of the operation is infinitely less than the risk of such attack, and that immunity can be obtained and a weight of doubt removed at a trifling sacrifice. If any attack has been attended by the formation of an abscess which has healed, then the question of removing the appendix may be indefinitely deferred, since by the occurrence of suppuration the patient is—in all but a very small percentage of cases—cured of his trouble. Should there be any recurrence of symptoms after the abscess has closed, then the removal of the appendix is certainly to be advised. Complications arising from the abscess itself may also call for surgical interference.

Some little caution must be exercised in accepting the statement that an abscess has, in any given case, burst into the bowel. In more than one instance the material which has escaped from the rectum, and which has been regarded as pus, has proved to be decomposed and long-retained mucus from a catarrhal colon.

In addition to the cases attended by abscess there are at least two types of appendicitis in which the question of removing the affected organ after the first attack may be reserved for some consideration. A slight or moderate attack of appendicitis in a child, which has definitely followed upon the lodgement of a mass of undigested food in the cecum, may never be repeated if the error in diet be also not repeated.

There are, moreover, cases in adults in which the attack would appear to be led up to by gross deviations from what might be regarded as normal food taking. Among such individuals are those who have no masticating teeth and who "eat anything"; those who habitually bolt their food, eat ravenously, or take irregular meals; those who have a leaning towards a particular kind of indigestible food, or constantly neglect their bowels. If these errors, or any combination of them, be corrected, there may be no repetition of the initial attack.

These examples are not cited as affording definite exceptions

to the general rule of operating, but rather as the cases which, in my experience, are most prominent among those in which there is no recurrence after the primary outbreak.

Removal of the appendix is also to be recommended in chronic appendicitis, in those examples in which there are no actual attacks, but in which there is abiding discomfort in the right iliac fossa with exacerbations of uneasiness.

In conclusion, it may be in accord with certain signs of the times if it be remarked that the removal of the appendix is not a panacea for all ills, nor even for all those manifold pains which seize upon the lower segment of the abdomen.—*British Medical Journal*.

Editorials.

THE ILLNESS OF OUR KING.

We did not appreciate how much we loved our King until we heard, Tuesday, June 24, that he was dangerously ill, and that a serious operation had been performed upon him. During those dark days which followed we began to realize that he, our Sovereign, was not only dear to us, but was also the most influential and most highly respected man in the councils of the nations of the world.

At the time of writing we are depending chiefly upon information derived from the official bulletins issued by the attending physicians and surgeons, reports sent out by the *Lancet* and *British Medical Journal*, and special reports cabled to the *New York Medical Journal*.

On June 16th the King, after attending a military review at Aldershot in bad weather, somewhat suddenly collapsed, and suffered from chills, nausea, pains, and other symptoms of abdominal trouble due to perityphlitis. On June 18th his temperature was elevated, and there were swelling and tenderness in the right iliac fossa. On June 21st the temperature was normal and swelling and tenderness gone. Rapid recovery was hoped for. On June 23rd the temperature was 102, and there was considerable swelling. On June 24th (Tuesday), at 10 a.m., an operation was decided upon, and was performed at noon by Sir Frederick Treves, assisted by Lord Lister, Sir Thomas Smith, Sir Francis Laking and Sir Thomas Barlow, Dr. Frederick Hewitt administering the anesthetic. The abscess around the cecum, of large size and deeply seated, was opened, evacuated, and washed. Two large drainage tubes were introduced and the wound was packed with antiseptic gauze. There was no resection of the bowel (as reported by certain newspapers). The recovery from anesthesia was satisfactory. The King passed a restless night.

June 25th (Wednesday)—At noon, twenty-four hours after the operation, condition favorable.

June 26th (Thursday)—A good day, followed by a fair night, the patient having refreshing sleep. The state of the wound satisfactory, although occasional pain is experienced, the dis-

charge healthy, the temperature normal. A fair amount of nourishment taken.

June 27th (Friday)—Wound comfortable; general condition good.

July 3rd—Constitutional condition admirable. Temperature normal since June 26th. It has been necessary to remove the drainage tubes, as they could not be tolerated, and gauze plugs are now used instead. The wound is granulating satisfactorily; the discharge has diminished and is perfectly inodorous. At no time has it been necessary to use sedatives to induce the King to sleep.

July 6th—Continues to improve. His surgeons and physicians announce by bulletin that they consider the King now out of danger.

The tone of the medical and lay press in the United States has been, as a rule, more than kind. We in Canada, who have been more in touch with the views of the surgeons of the United States than the average physicians and surgeons of Great Britain, can fully appreciate this fact. We are publishing in this issue certain extracts from articles which have appeared in the *New York Medical Journal* and other journals or newspapers published in the United States. We think they will be found interesting, although they, in many instances, give opinions expressed only two days after the operation, based on information received by cable.

In some respects the surgeons of Great Britain and the United States agree as to appendicitis, but there is more conservatism in the former as compared with marked radicalism in the latter. And yet we might say that there is, to some extent at least, a similar difference between Boston and Chicago as to conservatism and radicalism. In the former city they endeavor to make a diagnosis of appendicitis before operating; in the latter it is said some of the most strenuous surgeons consider that no patient should be allowed to have a pain or an ache in his belly for more than fifteen minutes without an operation. We, of course, have our differences of opinion in Canada, but we think we can say for Toronto that our surgeons would be found to be pretty well in accord with those of New York and Boston in most respects.

Occasionally we find a regular fault-finder in the United

States. Our friend, Dr. Carstens, of Detroit, expressed the opinion soon after operation that the King was in the hands of old fogies and was not likely to do well. It is quite true that the operator was actually forty-nine years of age. That would naturally seem rather old to a youth like Carstens; but in England they do not think that a surgeon or physician should be retired at 49. The inhabitants of Great Britain, both professional and lay, have implicit confidence in Treves, notwithstanding his great age. But Britain is not Detroit, and Treves is not Carstens.

We are glad to be able to publish in this issue the greater portion of an editorial in the *Lancet* written in the afternoon of the operation, and the greater portion of Sir Frederick Treves' able address on inflammation of the vermiform appendix delivered four days before the operation.

THE MEETING OF THE ONTARIO MEDICAL COUNCIL.

At the recent meeting of the Council of the College of Physicians and Surgeons of Ontario all the members were present, excepting Dr. Williams, of Ingersoll, and Dr. McLaughlin, of Bowmanville, both of whom were unable to attend on account of illness. Dr. W. J. H. Emory, of Toronto, and Dr. J. A. Robertson, of Stratford, were elected President and Vice-President respectively.

One of the most important discussions was that on a motion by Dr. Brock, seconded by Dr. Moore, that in the opinion of the Council no change should be made in the present membership. The motion was carried by a vote of 20 yeas to 3 nays. We may say that if it is true, as reported in the lay press, that any member has repeated the old accusation that the College representatives hoodwinked the profession at the time of the organization of the Council, he has made a statement that is most unjust to the memories of Drs. H. H. Wright, W. T. Aikins, and others who showed a most unselfish disposition during the negotiations leading up to the formation of the Council. As far as the "hot talk" went, the astute leader of the small opposition appears to have carried off the honors, and to have driven his opponents into a sad fit of hysterical frenzy.

The Council decided to recommend to the Provincial Legisla-

ture the necessary amendments to the Ontario law governing the admission of candidates to the study and practice of medicine, and permit of the operation of Federal law regarding registration in this Province. The matter is, however, really left in the hands of the Committee on Dominion Registration.

A committee, composed of Drs. Geikie, Britton and Macdonald, was appointed to further the proposal to establish the nucleus for a pathological and anatomical museum in Toronto. It was considered that at present many valuable and interesting specimens were lost because of the absence of such a place.

Dr. Bryce, the Secretary of the Provincial Board of Health, requested that fifth-year students be allowed to take charge of isolated camps, because there was a scarcity of licensed practitioners available for such purposes, especially in cases of emergency. Most of the members considered that the Council had no power to grant such privileges.

Dr. Spankie last year gave notice of a motion to raise the standard of the Matriculation Examination. After careful consideration, the Educational Committee recommended the proposed change. This recommendation caused considerable discussion when presented to the Council. Some contended that the present standard was as high, and probably higher, than that of Great Britain. Others, while favorable to a stiffening of the Matriculation test, thought it inexpedient to have a dying Council make any change. Others strongly favored the increase, arguing that we should not stand still, especially as many students were commencing their medical course at too early a stage. It was stated by some that the standard in Quebec at present was actually higher than that of Ontario, although many, if not the majority, believed such a statement to be incorrect. The recommendation finally carried by a vote of 16 to 11. It is supposed by Dr. Spankie and others who have studied the question carefully, that the new regulations will make the standard of matriculation about equal to that of the examination at the end of the first year in Arts in our Canadian Universities.

On motion, the congratulations of the College of Physicians and Surgeons were presented to Sir Frederick Borden on the dignity of Knighthood which had been conferred on him by His Majesty the King. Sir Frederick Borden, a licensed physi-

cian of Nova Scotia, was also made a member of the College of Physicians and Surgeons of Ontario.

A resolution of sympathy with His Majesty the King was moved by Dr. Moorhouse and seconded by Dr. Moore, and ordered to be cabled to Sir Francis Knollys. The resolution, which was carried by a standing vote, was worded as follows: "The members of the Ontario Medical Council, in session assembled, desire to offer most respectfully their profound sympathy to their Sovereign and the Queen Consort, in the King's great and most dangerous affliction. They humbly pray that the Sovereign Lord and Disposer of all Things may see fit to bless the efforts of those in attendance, and to grant his complete restoration to health and strength."

A MEDICAL MAN'S WAR.

"The usual row over the proposed changes to the Ontario Medical Act took place at the annual meeting of the Medical Council yesterday, and some of the language used in the debate, which was a heated one, reflects little credit upon the members of the Council who indulged in it.

The merits of the quarrel between the opposing factions in the Council are well known, and there may be room for much difference of opinion, but even the widest difference of opinions held in the strongest possible manner does not warrant the use of such intemperate language in what ought to be a dignified body, discharging important public functions.

For years this same row has been an annual occurrence, and at each succeeding annual meeting the language used during the debate has grown more unparliamentary and intemperate in its character. It is difficult to estimate where this violence of language will end, if the quarrel is not soon settled.

Some effort ought to be made by the members of the Council, all of whom individually are sensible and respectable men, to stop this annual exhibition of intemperate language, which can only serve to bring the Council into disrepute."—*The Toronto Evening News*.

An editorial such as this makes rather unpleasant reading for the ordinary physician. We, in this Province, are somewhat proud of our Medical Council. We feel that it has done

much to advance the standards of medical education, not only in Ontario, but in other parts of Canada, and in many parts of the United States, through a desire on the part of the latter to imitate our methods. We are anxious to send our best and most level-headed physicians to this our Provincial Medical Parliament. We desire to respect our representatives, and are inclined to resent such aspersions and insinuations concerning them as are contained in this and many other editorials which have appeared in the lay press. Great big head lines, containing such expressions as the following: "An Infernal Lie," "A Degraded Mind," "Choice Remarks Made at the Meeting of the Ontario Medical Council," "That Same Old Quarrel Bobbed Up Once More," appear in some of the daily papers. What is the meaning of all this? Among those who have investigated the matter, the general result has been to cause a feeling of surprise sorrow and shame. Extended comment seems unnecessary.

MEDICAL COUNCIL FOR CANADA.

At last, after many years of discussion in all parts of Canada the Dominion Parliament has passed a Bill incorporating the Medical Council of Canada. We have so frequently published Dr. Roddick's explanations as to details, that we consider it unnecessary to make any extended reference to the provisions of the Bill at present.

No attempt has been made to interfere with provincial autonomy. Each province may accept, or not, as it pleases—moreover, it is expressly stated that the Council shall only commence to act, or even exist, when all the provinces have, by proper legislation, decided to accept it. It is, we fear, unlikely that all will do so at once.

Representation on the proposed Council has been based, to a large extent, on the numbers of physicians resident in the different provinces, the rights of the various universities being at the same time recognized. Under the provisions in this regard the Council, if it ever came into existence, will be large, and the cost of its machinery great.

The general feeling in this part of Canada is that it is a very important step in the right direction. We are all inclined to give due credit to Dr. Roddick for the magnificent work which he has done. Considering what he has done in overcoming great obstacles of almost innumerable kinds, we entertain great hopes that he will continue his good work until the time comes when a candidate can get a license to practise in any part of Canada.

THE CANADIAN MEDICAL ASSOCIATION.

The Canadian Medical Association will meet this year in Montreal, on September 16th, 17th and 18th. This time of the year has been selected by the Local Executive Committee in order that all may avail themselves of the meeting, and it is expected that an unusually large number of members will be present.

To those who contemplate attending the meeting, the following facts will be of interest:—

ARRANGEMENTS FOR TRANSPORTATION.

The following arrangements will be in effect for the meeting of the Canadian Medical Association and the Canadian Dental Association at Montreal, September 16th to 18th, 1902:

In order to take advantage of these arrangements it will be necessary for members to obtain, from agent at starting point, a Standard Convention Certificate showing purchase of one way first-class ticket to Montreal between September 12th and 18th (both dates inclusive), which certificates will be honored on or before September 22nd, 1902, in Montreal by ticket agent of the line on which they arrive, for ticket back to their original starting point when certificate is endorsed by Secretary to the effect that delegate has been in attendance at the Convention, on following basis:

From Points South and West of Montreal:

If 300 or more attend, holding Standard Convention Certificates, they will be given tickets for return, free, to original starting point via same route as used to Montreal.

If less than 300 (and more than 50) delegates are in attendance, holding above-mentioned certificates, they will be given tickets for return to original starting point via same route as used to Montreal, at one-third of the one way first-class fare.

From Points West of Fort William:

Should special concessions be made *re* time limit, particulars will be announced later.

If 50 or more delegates are in attendance, holding certificates, delegates from Toronto or Kingston travelling to Montreal via Richelieu & Ontario Navigation Co. may return by Grand Trunk or Canadian Pacific on payment of \$5.00 to Toronto or \$3.25 to Kingston. Delegates from Toronto or Kingston travelling to Montreal via Grand Trunk or Canadian Pacific, may return via Richelieu & Ontario Navigation Co. on payment of one half the fare paid on going journey.

From Points East of Montreal :

If 10 or more delegates are in attendance holding Standard Convention Certificates, delegates east of Montreal will be given tickets, free, for return.

Any further particulars may be obtained from the General Secretary, Dr. Geo. Elliott, 129 John St., Toronto, or from the Chairman of the Transportation Committee, Dr. J. Alex. Hutchison, 70 Mackay St., Montreal.

LOCAL ARRANGEMENTS.

The meetings will be held in the various rooms of the Medical Faculty of McGill University.

PROGRAMME.

There will this year be two sections of the Association, one mainly Medical, the other mainly Surgical. The Address in Medicine will be given by Dr. Wm. Osler, of Johns Hopkins University, Baltimore; that in Surgery by Dr. John Stewart, of Halifax.

In addition to this, on one or two days of the meeting clinics will be held in the Hospitals at such times as will not interfere with the general programme of the meeting, and will yet enable all those who care so to do, to see or to exhibit living cases or specimens which may be of interest to the members.

PATHOLOGICAL MUSEUM.

The Museum will this year be one of the features of the meeting, and circulars have been issued by the Secretary of the Museum, Dr. M. E. Abbott, announcing the intentions of the Committee. Any contributions in the way of specimens will be gratefully received by the Secretary, and every care will be taken of specimens lent and as soon as the meeting is over they will be repacked and reshipped to the owners by a responsible person. Specimens for the exhibition should arrive not later than September 6th. The Committee is desirous more particularly of obtaining series of specimens illustrating diseased conditions of the liver, gall bladder and pancreas. To all those who may not have received circulars containing details of the Pathological Exhibit, the same may be had on application to Dr. M. E. Abbott, McGill Medical College, Montreal.

The Museum of Commercial Exhibits, which is under the special charge of Dr. J. W. Stirling, 255 Mount Street, Montreal, will be found in the most suitable part of the Medical Buildings, the space allotted therefor occupying one of the main halls of the building. Many applications have been received from various manufacturers and instrument dealers, so that a large and interesting exhibit is expected.

EXECUTIVE COMMITTEE.

President, Dr. F. J. Shepherd; Vice-President, Dr. J. Alex. Hutchison; Local Secretary, Dr. C. F. Martin; Local Treasurer, Dr. J. G. McCarthy; Council, Drs. James Stewart, F. G. Finlay and J. M. Elder.

PAPERS.

Some of the papers already promised are as follows:—

Dr. W. Corlett, Cleveland—Lantern Demonstrations on Exanthemata. Dr. J. O. Orr—Artificial Astigmatism. Dr. C. A. Wood, Chicago—Empyema of Frontal Sinus. Dr. P. G. Goldsmith, Belleville—Management of Cases of Nasal Obstruction. Dr. J. F. MacDonald, Hopewell, N. S.—Tuberculosis. Dr. A. R. Robinson, New York—X-Ray in Cancer. Dr. D. A. Shirres, Montreal—Degeneration of Spinal Cord Associated with Anemia or other forms of Malnutrition. Dr. James Stewart, Montreal—On some points in Cerebral Localization, illustrated by a series of morbid specimens and some living cases. Dr. A. Primrose, Toronto—Case of Filariasis in Man, cured by Operation.

Papers also have been promised by Drs. Armstrong, Ingersoll Olmstead, D. C. Meyers, G. S. Ryerson, F. A. L. Lockhart and many others.

Membranous Goltis.

Foster (*Edinburgh Medical Journal*) uses this name where membranes or complete casts of the bowel are at varying times passed per annum. The main features of the disease are, the passage of mucus in the form of glairy fluid, shreds or membrane, irregularity of the bowels, and abdominal pains of greater or less intensity and frequency. Most of the patients suffer from neurasthenia. There may be slight fever in each attack. In treatment, the first aim should be the treatment of the neurasthenia, by exercise and rest, plain and digestible diet, and regulation of the bowels. For the intestinal pains, bael, in drachm doses of the confection opium, during the attacks only, perhaps aromatic sulphuric acid in 20 m. to $\frac{1}{2}$ dr. doses. Many patients derive great benefit from a course of treatment at the Baths of Plombiers in the Vosges; the value of the waters probably consisting more in the method of employment than in their chemical composition. Warm water baths, ascending douches, and warm abdominal douches while the patient is under water, are the main points in the treatment. In more hopeless cases a right-sided colotomy may have to be performed.—*Charlotte Medical Journal*.

Personals.

Dr. Fred J. Hart, of Barrie, was married to Miss Helen M. Bain, of Winnipeg, June 5th.

Dr. C. E. Coke, Watford, Ont., registered at the *Globe* office, London, England, June 16th.

Dr. Samuel McCallum, of Thornbury, was married to Miss Maude E. Andrews, July 3rd.

Dr. George Sills Young, of Prescott, was married, July 1st, to Miss Eva Elizabeth Greenhill.

Dr. Chas. MacLachlan, of St. Paul, Minnesota, was married to Miss Etta L. Patterson, June 25th.

Dr. J. W. Forster, Assistant Superintendent at the Asylum for the Insane, Kingston, has been appointed Assistant Superintendent for the Asylum for the Insane, Mimico, and Dr. Barber, Assistant Superintendent at the Mimico Asylum, has been appointed Assistant Superintendent at Kingston Asylum.

The following changes and promotions have been made in the staff at St. Michael's Hospital:—Dr. Uren, from assistant surgeon to senior surgeon, in place of the late Dr. Sweatman; Dr. McConnell, of Parkdale, visiting physician; Dr. Winnett, assistant surgeon; Dr. O'Brien, of last year's interior staff, physician to the out-patient department; Dr. Parent, also of last year's staff, official anesthetist; Dr. Marlow, official anesthetist.

Among the medical men upon whom coronation honors have been bestowed are Sir Francis Henry Laking, physician-in-ordinary to the King, and Sir Frederick Treves, sergeant-surgeon to the King, who performed the operation upon him, who have been created Baronets. Among those upon whom Knighthood has been conferred are Dr. Arthur Conan Doyle, the author, and Dr. William Selby Church, president of the Royal College of Physicians.

The following appointments of house surgeons to the various hospitals of Toronto have recently been made:—Toronto General Hospital: Toronto University—J. D. Chisholm, Berlin; R. A. Mullin, Hamilton; T. R. McCollum, Toronto; A. B. Rutherford, Owen Sound; P. W. Saunders, Toronto. Alternatives—D. Lancaster, Toronto, and G. Davies, Cayuga. Trinity University—C. R. Elliott, Toronto; S. Johnston, Toronto; R. Neil Kyles, Camilla; W. H. Lowry, Guelph; R. Parsons, Emery. Alternates—S. J. Farrell, Toronto, and G. B. Jamieson, Barrie. Hospital for Sick Children—Arthur B. Wright, Joseph S. Graham and James Waters. St. Michael's Hospital—F. J. Colling, F. J. Doherty and C. S. Wainwright.

MEDICAL ITEM.

The Ontario Medical College for Women has just completed one of the most successful years in its history. The classes in attendance have been large, and all of the students going up from the college for their final examinations at Trinity and Toronto Universities have, without exception, been successful, while at the College of Physicians and Surgeons, although about 35 per cent. of all the candidates presenting themselves for examination failed to pass, yet all of the students from the Women's Medical College who tried the examinations were successful.

Five out of the eight members of the graduating class have already secured appointments as house physicians in American hospitals:—Dr. Emma Connor, at the Women's Hospital, Philadelphia; Dr. Elizabeth McMaster and Dr. Isabella Thompson, at the West Philadelphia Hospital for Women; Dr. Isabella Wood, at the New England Hospital for Women and Children Boston, Mass., and Dr. Lazelle Anderson, at the Children's Hospital, Staten Island, N.Y.

At a meeting of the American Congress of Tuberculosis, held in New York June 3, 4 and 5, a reorganization was effected and the following officers elected for the ensuing year:—Honorary President, Dr. Henry D. Holton, Brattleboro, Vt.; President, Dr. Daniel Lewis, New York, N.Y.; 1st Vice-President, Dr. J. A. Egan, Illinois; 2nd Vice-President, Dr. Frank Paschal, San Antonio, Texas; 3rd Vice-President, Dr. E. J. Barrick, Toronto, Canada; 4th Vice-President, Dr. J. A. Watson, Concord, N.H.; 5th Vice-President, Dr. Romola, Guatemala; Secretary, Dr. George Brown, Atlanta, Ga.; Treasurer, Dr. P. H. Bryce, Toronto, Canada.

The suggestion to hold a World's Congress of Tuberculosis in St. Louis in 1904 met with approval, and steps are being taken to advertise this fact and secure the aid of medical journals, societies, physicians and scientists in making this movement a grand success.

Wet Surgical Dressings.

Sometimes it is desirable to maintain moist surgical dressings upon a wound, and where a plain sterile solution is desired Van Schaick recommends eight parts of salt, twenty parts of glycerine and one thousand parts of water. Dressings moistened in this solution remain dampened for a much longer time than when water alone is employed.—*The Clinical Review*.

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Original Communications.

RUBBER SPLINTS IN THE TREATMENT OF SEPTAL CURVATURE.*

BY J. PRICE-BROWN, M.D., TORONTO.

Fellow of the American Laryngological Association, etc.

Three years ago I had the honor of reading a paper before another American Society on the use of rubber splints in the treatment following intra-nasal operations. Since that time I have had occasion to use them in many instances in which operative treatment was required; and now desire to lay before the Fellows of this Association, in a brief paper, the result of that experience; confining my remarks, however, to their use in cases in which septal curvature was the principal evil to be dealt with.

While vomeric ridges and exostoses may extend all the way back to the posterior nares, curvatures are usually confined to the anterior two thirds of the septum; and a majority of these principally to the triangular cartilage. It is in the treatment of the latter class of cases that the rubber splint is particularly suitable.

In the formation of septal curvature there are several points which are of great practical interest. In a large majority of instances, particularly when occurring in adult life, the curvature of the cartilage is accompanied by thickening, which develops chiefly on the convex side and in the neighborhood of the so-called septal tubercle. While this thickening is simply physiological on the straight septum, it becomes pathological on the curved septum, owing to the hypertrophic enlargement of the glandular tissue, occasioned by the rounding or stretching which the curvature gives to the mucus membrane. In

* Read at the annual meeting of the American Laryngological Association in Boston, May, 1902.

these cases, while the tubercle on the concave side will shrink away into less than normal development, the tubercle on the convex side, lying in the region of the union of the vomer with the perpendicular plate of the ethmoid, will enlarge sufficiently to interfere with normal breathing; and together with the general curvature of the whole triangular cartilage almost occlude the passage. Projecting backwards from the tubercle along the union of the supra-vomerine cartilage with the vomer, the hypertrophy may continue forming, in old cases, the long osseous ridge so often met with. On the other hand, anterior to and below the tubercle, along the line of union of Jackson's cartilage with the anterior end of the vomer a similar hypertrophic ridge may form, complicating and making larger the general curve.

Upon the etiology of septal deviations I will not enter, except to offer a mild protest against the idea that the method of handling the olfactory organ has nothing to do with either the cause or increase of the deformity. It cannot be the chief cause; but I believe from my own professional experience, that in many cases of septal curvature, the habit of wiping the nose toward the concave from the convex side—which is habitual in all these cases—has a serious effect in aggravating the deformity.

If a dentist in a young adult can attach a chain to a tooth, which is blocked behind the adjoining ones for want of space, and by constant traction, in the course of a few weeks, draw the two apart, and pull the laggard one into line, it is reasonable to believe that the oft-repeated twiggling of the nose in the one direction will have a serious effect upon the softer cartilage. These curved noses are always weeping; and pulling them many thousands of times each year to the one side, acts upon the principle of bending a green stick. The more frequently you apply the pressure, the more curved will the bow become.

My own experience differs also from some clinicians, who claim that when the bony septum is curved to one side the triangular cartilage is usually curved to the other side. The rule I have found to be the opposite. It is possible when the chief deflection is that of the vomer that the septal cartilage may curve the other way; but when the main deformity is of the cartilage, and septal ridge extending backwards has been almost invariably on the same side, as though the whole septum had formed a bow-like protrusion into one or other nasal cavity.

Sometimes these deformities are confined entirely to the cartilaginous region, the concavity on the one side being book-notched in form and ending abruptly at the commencement of the bony septum—the convex side being rounded and hypertrophied in the region of the tubercle. In the treatment of

such cases as these are the rubber splints especially useful; and it is to Mr. Lake that we owe the suggestion. He does not, however, mention the nature of the cases in which its use is advisable, nor the operation to which it serves as an adjunct. Still the shape of the splint and its advantages are spoken of by him in these words:

"Rubber sheeting should be kept in three thicknesses, one-eighth, two-eighths and three-eighths. The exact shape and size varies with each case. It may be either straight or boomerang, the latter enabling one to get pressure higher up the septum. If the thickest sheeting be used, the edges should have a long bevel given them by cutting with a sharp wet knife. These splints cannot become septic any more than can vulcanite; while they exert an elastic pressure which is less apt to cause sloughing and is surprisingly effective."

The class of cases in which I have personally found them most useful is the one that is the title of this paper; but the splint is rarely inserted without previously incising the cartilage. The usual method of procedure is the following:

The nasal passages are first sprayed with a one per cent. solution of cocaine. This shrinks the tissues and renders the passages more open, enabling the operator to more thoroughly cleanse them. To accomplish the latter, I prefer using an albolene or glycolene spray under pressure as less likely to produce abrasion of the mucous membrane than are the alkaline solutions when similarly used.

A five per cent. solution of cocaine is then applied on a cotton holder to the septal cartilage on both sides, chiefly to the convex one. Also a solution of adrenalin 1 to 5,000. Local anesthesia being induced, the hypertrophied tubercle is removed if present, by knife or saw. Then a tetotomy knife is passed from behind forward in one or two straight lines over the convex surface and through the cartilage—the lines being a short distance apart and parallel to each other. These incisions are usually made on the bevel, enabling the cut edges to glide over each other. The finger is next passed into the nostril and the cut septum pressed with little difficulty toward the median line. A splint is now chosen that after insertion will produce a slight pressure upon both inferior turbinated and septum when straightened. I like to have a fairly tight fit, with a splint not too wide, so that the elastic pressure will keep it in position. There should be room enough above the splint to pass a light cotton holder armed with a small pledget as far as its posterior end; and the inferior meatus sufficiently free to allow a similar cleansing right through to the pharynx. After insertion, as a rule, the splint should not be removed at all until healing and solidity have been accomplished, whether

this takes two weeks or four, or even longer. Still for some time the patient should be under the daily observation of the surgeon, and the nasal passage regularly cleansed by the use of the cotton holder dipped in a weak solution of cocaine or mentholated albolene or other medicament, as the exigencies of the case might require.

For a day or two there might be a slight rise of temperature and some pain; but these would soon pass away; and after a week or so I have always been able to allow the patient to go to his home, usually at a distance, with instructions to keep me informed of the progress of the case, and to return for examination, etc., at a certain time.

The advisability of moderate tightness on the part of the splint is instanced in several ways: First, by its elasticity it maintains its position, giving immovable support to the septal cartilage during the process of healing. Second, it promotes absorption of the overlapping edges of the cut cartilage: for on removal, if allowed to remain until healing takes place, the septum on the side operated upon will present a uniformly smooth surface.

I know that I run the risk of opposition to this method of treatment, on the ground that such prolonged retention of the splint might favor the occurrence of sepsis. This has not proved to be the case. As I said before, when fever occurs at all, it is due to irritation, arising almost immediately after operation and quickly subsiding. During the long process of wearing the splint there is no fever whatever, and no symptoms save those that arise from the occlusion caused by the presence of the instrument; and which is usually less than that previously experienced from the simple existence of curvature.

The operation in regard to hands and instruments is done antiseptically. Within the nasal passage is placed a smooth compressible aseptic body, which, as stated by Lake, cannot become septic; and the nasal passage above and below this harmless body, being kept clearer of secretions than it was before the operation, it is difficult to believe that the retention of the instrument during the process of healing can be productive of evil.

As illustrative of these facts I will briefly quote the history of the following cases:

Case 1.—A boy, aged 6 years, was brought to the outdoor clinic of the Western Hospital for treatment on account of entire inability to breathe through the right nostril. The occlusion had been increasing for several years and was occasioned, the mother thought, by a fall on the face which flattened the nose somewhat when he was two years old. There was a

marked curvature of the cartilaginous septum to the right with a longitudinal ridge at its base. Under chloroform the ridge was excised. Then an incision made over the centre of the convex curvature from behind forward, the course of the knife being guarded by the little finger in the left nostril. Notwithstanding this, the knife accidentally penetrated the mucus membrane into the left nasal cavity. Hemorrhage was free; but a one-eighth splint long enough to extend beyond the triangular cartilage was at once pressed into the nostril. Bleeding ceased as soon as the splint was in place; and after the first hour or two there was no suffering. Nothing whatever was done afterwards except to wipe away any discharge that might exude. The splint was removed two weeks later, revealing a perfectly healed, smooth, straight septum. After cleaning the splint it was replaced and worn another week; when it was taken out and the little patient discharged cured.

Case II.—A carpenter, aged 28, had his nose broken when a child, by a fall, partially depressing the bridge. For years he had suffered from almost complete stenosis on left side. Examination: Right nasal cavity enlarged, presenting concave book-notched septum on that side. On left, large curvature with thickened tubercle and ridge along Jacobson's cartilage, filling the passage. After cocaineization an osseous ridge was discovered on same side, extending to near the posterior choana; while in the centre a bony synechia connected inferior turbinated with septum.

The first operation was to excise a portion of the enlarged tubercle and Jacobson's ridge and put in a rubber splint. Four days later the synechia and osseous ridge were sawn out; and after hemorrhage had subsided a long rubber splint, extending to the posterior nares, was inserted. This was left in for a week: then taken out daily, and, after being cleansed, returned. The excisions in this case were extensive, although there was no linear cut into the septal cartilage. In six weeks the healing was very satisfactory, resulting in a clear chink from end to end of the passage with re-formation of mucus membrane.

Case III.—A boy, aged 7 years, was brought to the hospital as a mouth breather for treatment. He had been stunned by a blow on the forehead when four years old, since which time, his mother reported, nasal breathing gradually became more difficult and finally ceased. There was curvature of cartilage to left with ridge at base. Columnar cartilage curved to right. Adenoids in nasopharynx. Under chloroform this ridge was excised; then two bevelled incisions from behind forward were made through the cartilage on the curved side, the finger being placed in the right nostril to act as guide and protect mucus

membrane from perforation. A two-eighth splint was at once inserted, pressing the cartilage into the medial line. While still under the anesthetic a slip was taken from the columnar cartilage on the right side and the adenoids removed. Two weeks later the rubber splint was taken out, the result being free nasal respiration and a good left nasal passage.

Case IV.—Boy aged 17. Nose externally twisted to right. Said that he was struck by a ball on the nose, two years ago, since which time nasal stenosis and deformity had occurred. Examination revealed extensive ridge formation on left side, with curve filling up the fossa, the tubercle part of the cartilage being adherent to the middle turbinated. Under cocaine I excised front part of ridge and the tubercle synechia, and after compressing septum to right with a chisel, I inserted a one-eighth inch rubber splint. Four days later, under chloroform, I made two incisions from behind forward through the septal cartilage, guiding as in the other cases by the finger in the opposite nasal passage. The cut septum was forced by finger to the medial line and a two-eighth rubber splint inserted. This was left in two weeks. The front part of the passage being now freely open, a bony ridge extending along the lower part of the vomer backwards was removed by saws; and to favor the formation of a smooth and even surface a long and wide one-eighth splint was placed in position. This created no discomfort. As the patient was returning home to a distant village he was instructed to leave it in without removal for a month. He wrote later that he had followed the directions, taking it out at the time stated, with the result of a better-shaped nose and better breathing on both sides.

Case V.—Divinity student, aged 26, October, 1900. Has had increasing nasal stenosis on left side for years, amounting to complete occlusion at time of examination and destroying the tone and quality of the voice. There was a deep book-notch with wide passage on right side. On left, curvature, and general hypertrophy sufficient to completely fill the passage. One part of the cartilage from exposure to the dry air of respiration had become denuded of epithelium. The cartilage seemed to be very hard and resistant to pressure.

Under local anesthesia from cocaine the case was operated on as in the others mentioned; but I could not press the septum to the medial line successfully, and only inserted a one-eighth splint. Ten days later chloroform was administered at the hospital and a central cut made through the cartilage on the concave side along the floor of the notch. Relying on the previous cuts as well, the septum was then more successfully pressed toward the medial line and a two-eighths splint put in.

The patient was kept in bed for several days. There was

during this period some pain, and a rise of temperature of one or two degrees. But these symptoms gradually abated. The splint was worn continuously for two weeks and becoming loose was removed. As I was going south for the winter, a splint was not inserted again—simpler treatment for the time being resorted to.

In May, 1901, he returned to the hospital for treatment, a good deal of stenosis on the same side having recurred. Under chloroform I sawed out a ridge bone behind the curvature; and then made two horizontal cuts from behind forward on the concave side. Then with a spatula slipped over the curvature I forced the septum partially over, following this by the use of Delstanche's instrument. This time I put in a long and wide two-eighths splint. The pain following the operation was very slight and the fever practically nil. Several weeks later the splint was removed, and as the patient felt well and was going on a summer missionary tour to the north, I made and inserted a splint that would give adequate support and not be likely to become displaced. He went away on the 26th of June and returned on the 19th of September, a period of twelve weeks, without ever having it removed. It had occasioned no discomfort. He had breathed somewhat through that side and had found no difficulty in using his voice. On removing the splint the passage was free and the mucus membrane healed.

Case VI.—Boy, age 13. Mouth breather, snores and restless while sleeping. This, too, was an extensive curvature to the left with spur-ridge along Jacobson's cartilage. Deep saucer-like concavity on the right side. After chloroform anesthesia, a solution of adrenalin was applied, and the ridge removed with a knife. Then three incisions from back to front were made over the convexity and a good sized one-eighth splint was used. There was neither pain nor rise of temperature. Three days later under cocaine the splint was removed and a two-eighths one put in its place. The boy felt very well, and two days later, contrary to orders, took a long ride on his bicycle in the bent-over position. This caused a severe epistaxis from the other nostril, one of the incisions having perforated the septum. There was no bleeding from the plugged side. Tampons had to be inserted; but the splint was not removed. In another week I allowed the boy to return to his home, forty miles away, still carrying it. I heard from his father from time to time, but as the lad was attending school and free from all symptoms he did not come back to the city to have it removed until four months afterwards. The result is that he has a free open passage, and has lost all his old naso-pharyngeal symptoms.

Case VII.—Lady, age 60, with curvature of septum; no anterior spur, but bony ridge along the base of vomer. In this case, under cocaine and adrenalin I treated the curvature first. The septum was hard. So instead of knife incisions over the rounded surface I made two saw incisions about half an inch apart; and then two knife incisions on the concave or left side. With Delstanche's instrument the septum was then pressed over to the medial line, and a two-eighths splint put in. Two days later this was removed, the parts cocainized, and a three-eighths inserted in its place. This was worn for three weeks. The septum seemed consolidated, the ridge was sawn out and another splint worn for a few weeks longer. I then showed the case to the hospital staff, the contracted nasal passage having been restored to a normal condition and appearing the same size as the other.

In closing, I would remark that these splints can readily be made by the surgeon, the only tools required being a sharp knife, a pair of scissors, a file and a piece of sandpaper. They are, as already remarked, smooth and pliable, and thoroughly aseptic; while their compressibility renders them superior to any other material of which nasal splints can be made. I may say, also, that the edges should always be rounded, and while it would not be wise to put them in too tightly, care should be taken to have the instrument thick enough to keep its position, without resting for support on the floor of the inferior meatus.

While I advocate the wearing of the splint uninterruptedly as long as its services are required, I insist again on the necessity for oversight of the patient by the surgeon for the first few days; and subsequently keeping in touch with him until the splint is finally removed.

THE DOCTOR AND THE MEDICAL SOCIETY.

By JOHN HUNTER, M.B., TORONTO.

This is a perennial problem, for after each meeting the medical editor is found bewailing the paucity of attendance, lack of interest, etc. Before dealing with some special phases of this question, I crave permission to make the following somewhat lengthy quotation, as I think it admirably expresses the views of those who make a practice of attending medical meetings: "Now, one of the good things about conventions is that a man who has attended one can never be as if he had not attended one. This is not to say that he will want to go again, or that he will certainly enjoy it, but only that he will never be able to treat the matter as if it had never happened. If it does not refresh him (and it is quite conceivable that it may bore him) it will at least make it impossible for him to think of the world exactly as he did before he went. He has seen something else than the narrow scenery of his own task. There are other tasks than his own, and there are other ways of approaching his own task, unsettling it may be, but henceforth one realizes that he is not the whole world, and, try as he will, he will never be able to shrink things back to their old village proportions."

Whether the above picture be a true one or not, the fact remains that there must be something radically wrong with the man who persistently absents himself from attendance at these meetings, or with the character of such meetings or the methods in which they are conducted.

Let us first enquire into the morbid elements in the character of those doctors who never attend, or are indifferent about their attendance at medical meetings. We pass over the excuses—seldom valid enough to merit attention—such as "want of time," "expense," etc., and endeavor to ascertain as accurately as possible the real causes for this most unfortunate condition, and I use the word unfortunate advisedly, for I certainly think it is such to the physician, his patients and his profession:

1. Morbid Self-Esteem.—Swelled head is the unscientific, inelegant, but well understood term. Such an one is fully impressed with the conviction that he is far above all need of assistance from the "rank and file." Medical associations may be all right for the "little fellows" but not for such as he, and he alone, deems himself to be.

2. Morbid Modesty.—There is no more beautiful virtue than innate modesty, but does not the term "morbid modesty" explain fairly well the attitude of that large class of physicians who conscientiously believe that they cannot contribute anything of sufficient merit to be of interest to the meeting, and

therefore conclude that their absence will not be felt. These men seem to overlook the fact that the presence of a large appreciative audience is one of the most important factors that go to make up a successful gathering.

3. Morbid Indifference.—The adage is no less true than trite, that "no man liveth unto himself." The physician who is solely "in" his profession for all he can get out of "it," utterly regardless as to whether his profession is keeping abreast of "the times" or not, is either a monstrosity incapable of appreciating his obligations to his profession, or else a parasite willing to live upon the labor of others, but unwilling to contribute anything himself.

4. Morbid Fears.—How many physicians believe that they must spend their whole life within easy call of their patients. These timid souls seem to imagine that if they were to take a few hours, or a day or two, to attend a medical association, their whole practice would immediately go to the "bow-wows." This is a delusion, for the separation is invariably mutually advantageous. The patients realize, probably for the first time, what a great privilege it is to have the prompt attendance of a physician in whom they have full confidence, and the physician is getting the change and the wider views that will add very materially to the character of his work.

Many more morbid elements suggest themselves: but I must hurry on to briefly discuss the second phase of this question, viz.: What is radically wrong with the character of such meetings or the methods in which they are conducted.

1. Morbid Character of Papers.—A medical audience is a keenly critical one. It quickly discovers the motive of the reader, as to whether his paper is intended to be an honest contribution to scientific medicine, a personal advertisement, or an act of mere courtesy to the president. Any paper worthy of the attention of a medical association must be on a subject suitable to the audience, and be an accurate, intelligible presentation of the subject in keeping with the scientific attainments of the day.

2. Morbid Length of Papers.—Is there anything that has a more demoralizing influence on the minds of an audience than to see the reader of a paper unfold a role of twenty or thirty pages? All inspiration is at once dispelled, pleasure vanishes, and a sullen determination to endure the agony as best they can, creeps over the listeners.

3. Morbid Character of the Discussions.—It is said that the distance a cannon can throw a projectile can be roughly estimated by the weight of the former over the latter. The proportion is about as 100 to 1 for great propelling power. The influence a man can wield over his fellows is governed by his character, tact and intelligence. How often does it happen

during the discussion of a paper that there is a want of proportion between the speaker and his subject. A light man's efforts at discussing a weighty subject is, to say the least, not a very inspiring spectacle, nor is it any wonder such speakers drift far afield. However, an audience will always be interested in any man whom it believes to be truthfully and honestly endeavoring to make the best contribution he possibly can to advance the interests of his profession.

Fourth, and Last, Morbid Defects in Elocution.—How few medical men can read or speak attractively. Elocution seems to be a lost art with us, and yet by tone of voice and gesture impressions can be made too subtle perhaps to be caught by stenographer's pen, or set up in cold type, but none the less potent for good. The classic language, the rich cadences of voice, the expressive features, the bewitching eyes, the graceful gesture, the poise of body; these often remain as charming memories long after the subject discussed has been forgotten, perchance long after he who was the embodiment of them has passed away.

THE PRODUCTION OF THE SEX AT WILL.

BY JAS. S. FREEBORN, MAGNETAWAN.

From observations extending over a period of ten years, I have come to the conclusion that the sex can be produced at will. My attention was at first directed to the statement of mothers in confinement, when it was stated, "I am two or three weeks over my count," I invariably delivered a male child; and when it was stated, "I did not expect to be sick so soon," a female. I began to think that the time of conception between the periods or dates of menstruation determined the sex, mothers reckoning from date of last menses. From notes of over 500 cases my prediction as to sex has been verified in 98 per cent. of all confinements, when correct date of last change was noted. My rule has been, when called to a patient in labor at full term, to ascertain date of last normal menstruation, take the average time for gestation, count back, and should the date fall in the first half of interval between menses, I predict a female; should it drop in latter half, *i.e.* in the two weeks previous to next expected change, my prediction is a male.

My anxious patients, who desired boys, and limited sexual congress to a period of ten days previous to next expected change, have never been disappointed in results. So far, I have had no appeals for girls.

Possibly some of your many readers may. If so, advise your anxious parent to limit congress to ten days after cessation of menstruation and note the result.

THE FILLING OF A LONG-FELT WANT.

By H. S. HUTCHISON, M.D.

The magic name, Muskoka, brings to many minds remembrances of delightful holiday times in a truly delightful region. Not least amongst the charms of the place is an atmosphere, pure and free, with which the fragrance of the pine is blended.

This element caused thoughts to turn towards putting to practical healthful use this country of enjoyment, and five years ago by the generosity of two men a fine sanatorium was erected for patients just commencing the tedious battle with lung trouble. This institution has flourished, and cottages have been erected by different people to provide extra bedroom accommodation for the numerous applicants for admission.

While time enough has been going by for satisfactory conclusions, as to benefits of climate, to be drawn amongst patients in possession of sufficient means to pay fairly for their maintenance, cities and towns throughout the land have been striving to cope with the problem of helping cases in which the individual is not able to pay fairly for his living and medical treatment, or possibly cannot afford even the expenses of the journey. Many suggestions have been made. The addition of a wing to the Home for Incurables was talked of, and though the need for this has in no way been lessened, the original idea of housing hopeful and even incipient cases with those in which the disease has made terrible ravages, seems a cruel one. Again, a hospital near Toronto has been spoken of, but it is questionable whether, in the belt of land which borders on the great lakes, suitable climatic and atmospheric conditions could be obtained.

The difficulty has now been solved through the liberality of the two men who erected the first building. On Saturday, July 5th, a free hospital for consumptives was handed over to the trustees of the National Sanatorium Association by Mr. W. J. Gage, of Toronto, the gift of himself and of the late Hart A. Massey.

A special excursion was arranged from Toronto, and a large number of people came up for the function. Addresses were given by Sir William Meredith, Mayor Howland, Rev. J. Pitt Lewis, Ald. Hubbard and others all of whom, from the prominence of the positions held by them in public life seemed to have been seriously impressed with the needs for such a place, and to be sincerely glad that everything was now so completely satisfactory.

The situation of the new place is on the shores of Lake Muskoka, about two miles from Gravenhurst, and three

quarters of a mile from the Muskoka Cottage Sanatorium. The building is placed upon a rocky elevation about one hundred yards from the water, down to which there is a gentle slope of lawn. Immediately behind is the bush, which is high enough to afford shelter from the north wind. The view is magnificent. The lake is here composed of a series of bays, the points of land aiding the rocky isles with which all Muskoka waters are beautifully studded, in presenting a view thoroughly typical of this beautiful district at its best. An almost continuous stream of gaily bedecked steamers and handsome launches is an element added by man to the beauties provided by Providence, and is one that serves the purpose of preventing any feelings of isolation. Moreover, not much less beautiful than the approach from the front is that from the rear, the property of the Association being beautifully wooded, the road being a winding avenue through stately pine trees.

The building itself is a very fine structure, handsomely finished, lit throughout by electricity, and is adapted as much as possible to meet the requirements of the work. The front faces south, as do all bedrooms, in each of which there is a large window opening into the balconies. In this way the sunlight is secured for the greatest possible number of hours daily. Ventilation is effected by means of the large windows in the rooms, the very large fanlights over the doors, and the windows at the ends of the long corridors. Incidentally, this system, though the simplest is by no means the cheapest, for the amount of heat required to warm such a large amount of incoming cold air is very great. The lavatories are large and airy. A new departure is the placing within the stone foundations of the verandahs, so that, the boilers being placed close to the front wall in the basement, the floors of these verandahs are warmed, thus adding immeasurably to the comfort of a very important part of the treatment, sitting out-of-doors in winter.

Recreation, a factor by no means small in the successful treatment now in vogue, is here made possible by means of several features. Indoors there is a fine large sitting room with a piano, a library, and a well-equipped billiard room. Outside rowboats, and hammocks in the cool grove near by in summer, and tobogganning and snow-shoe trips in winter form pleasures in which many may participate.

The respects in which the new hospital differs from the sanatorium are, less elaborate fittings of the building, less elaborate minor details of various kinds, and the presence of public wards and of more than one bed in all rooms.

A number of the prominent phthisiologists of Canada and the United States have already visited the new place, and all

have pronounced everything to be eminently satisfactory for the needs of the work.

Philanthropy has stood the brunt of commencing this noble work, and the public, for whose good it has been started, is asked to provide the means for the carrying of it on. Already the feeling in regard to this charity has been shown by the raising of a substantial sum for the fitting up of the interior of the building, and there is no doubt that the wide interest now being taken in tuberculosis will manifest itself in a practical way in the future.

Selected Article.

FRACTURES OF THE UPPER THIRD OF THE FEMUR.

BY W. BURT, M.D., PARIS, ONT.

As it does not yet seem to be generally established that all, or nearly all, fractures of the femur may be treated by the straight position with Buck's extension apparatus, I will add to the record one of my latest experiences, with the permission of Dr. Sinclair, who asked me on the day following the accident to see the case with him and others. The doctor has handed me a short history of the accident, which is as follows:

Y. L., age 16 years, always enjoyed good health. He met with the present accident in the Y. M. C. A. gymnasium on November 16th, 1901, while trying to jump over a horizontal bar three feet from the floor. He caught the left foot, which tripped him, and he fell with great violence to the floor.

He was seen shortly afterward by Dr. Dunton and myself. Under an anesthetic, we found the femur dislocated upward on the ilium, which was reduced, the head of the bone going in with a thud. After the reduction of the dislocation we discovered that we had a fracture of the upper third of the femur to deal with and shortening to the extent of two inches and a half, the proximal fragment projecting markedly forward and outward. On an assistant making extreme flexion and extension upward, I could push the upper fragment into place, but the moment I let go it would tilt forward. The greatest flexion on the part of the assistant would not reduce the fracture. We put him up with a flexion apparatus, but the displacement remained.

I have been induced to publish this case on account of the articles by Dr. Hibbs and Dr. Shaffer in your issues of February 1st and 8th, and for the reason that there are to-day teachers of surgery who would think it a criminal procedure to treat a fracture of the upper or lower third of the femur in the straight position. I feel that if ever I had a bad case and was proceeded against for malpractice, there are many surgeons who would testify that a better result might have been obtained by the flexed position.

In my early days, when I was an interne in the Brooklyn City Hospital, and fractures of the thigh were somewhat numerous for a time, I gleaned from Hamilton's classical work and discarded double-inclined planes and flexed positions alto-

gether, and I have never had reason to repent, fractured thighs coming under my care now and again ever since.

In the present case Dr. Sinclair, with the assistance of Dr. Dunton and Dr. Scott, put up the fracture in the flexed position, and with all that they could do the upper fragment was plainly visible, projecting forward and outward. Their faith was in the flexed position. I felt that the straight position could not make matters worse and possibly a good deal better. The flexed apparatus was removed and Buck's extension applied. The projection forward of the upper fragment disappeared in a great measure almost immediately, and I felt that the condition of affairs would still improve and that in a few days at least the fragments would be in the best possible condition, which took place.

I examined our patient about three weeks ago at the request of Dr. Sinclair. I found him in the garden using a wheelbarrow and scarcely favoring the injured limb at all. The contour of the limb was normal. A better result could not be desired. Any unevenness on the outer side could not be detected, nor was there shortening to the extent of five millimetres.

I may state here, what is self-evident to every one, that the tendency of the upper fragment to tilt outward is completely overcome by Buck's extension apparatus, which brings both fragments into a straight line, and the pelvis does the tilting, which often makes the fractured limb to appear the longer. This is why I take exception to the necessity of abducting the limb when applying the apparatus. There are other points which the advocates of the extension splint allege for their method, which those in favor of Buck's apparatus will not concede to them, *e.g.*, immobility of the pelvis, continuous extension, and mobility of the lumbar spine.

Not long after the above-mentioned case occurred, Dr. Sinclair had a compound fracture of the lower third of the femur in a boy aged twelve. Although the lower part of the thigh was much swollen, the same procedure was adopted, and the result is most promising. The doctor tells me that there is not a quarter of an inch shortening, and the patient is walking without a cane, favoring the limb very little. Coaptation and the long side splints were used in both cases.

While I should not say that there are not many surgeons who can obtain good results with inclined planes and extension splints, neither should I like to say that a better result might have been obtained in some cases by the straight position with Buck's appliance. In the present status of affairs I do not think that those who pin their faith to the flexed position should malign those who have greater confidence in the straight

position or give testimony against them in ease of suit for malpractice. It is next to impossible for the surgeon to visit a case several miles in the country and make daily changes of the dressings, as is required with the extension splint, whereas almost any onlooker can attend to the treatment by Buck's plan, and then, again, it is so simple, no special apparatus being required. The use an of anesthetic is seldom required unless it is thought desirable to use plaster of Paris, both as a coaptation splint and to prevent shortening after reducing the fracture, a plan to which, if I remember right, the late Dr. Henry B. Sands was very partial.—*New York Medical Journal*.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

Cholelithiasis.

For regular, dependable treatment of gall-stones (aside from those cases that have progressed to a surgical condition), and the states of the stomach, liver and bowels preceding, coincidentally-occurring or dependent thereon, the method long held by Thomson commands respect.

The regular use, and for a long time, of saline cathartics, alternating between sodium phosphate and sodium sulphate, is important. The saline should be taken in doses of about two drams dissolved in a glass of hot water slowly sipped before arising each morning. Distinct advantage is obtained by adding ten grains of the salicylate of sodium to the saline draught ; and it is wise in some instances to interrupt the saline cathartic once each week or two with a light mercurial at night.

The beneficial action of this much of treatment alone lies in the overcoming of the state of habitual constipation that seems to belong to cholelithiasis, as well as the lessened liability, because of increased elimination and increased peristaltic action, to infection of the gall tracts and bladder. To facilitate the discharge of biliary calculi no better means is known than the employment of olive oil. This has been so long in use, and so universal, that its value admits of scarcely any question.

Instead of using large quantities of the oil a smaller amount, that will be well held up by the stomach day after day, is probably better. One or two ounces, in milk, taken each night for a week or ten days, when a rest of the same period is allowed then resuming the oil again, is a plan that may be followed for some time, in this manner clearing away the paroxysmal attacks of biliary colic and the more or less constant hepatic distress attendant upon cholelithiasis.—*The Clinical Review*.

Heterochylia.

Korn, Berlin (*Archiv fuer Verdauungs-Krankheiten*).—This term was introduced by Hemmeter for the classification of those cases of nervous dyspepsia in which there are sudden and frequent changes in the gastric secretions. In such cases there have been observed within one week after test meals normal

acidity, hyperacidity and anacidity. The author reports a series of eleven cases in which such a condition prevailed.

In seven of these cases the possibility of any anatomical changes in the gastric mucosa could be absolutely excluded. The variation in the acidity must be explained by a nervous influence acting upon the secretions in both an augmentatory and an inhibitory way. In three cases in which there were pathologic changes there existed also this variation. Here there was no doubt a combination of organic and nervous involvement of the stomach.

In order to avoid false conclusions, frequent examinations of the gastric contents should be made in all doubtful cases.—*Inter-State Medical Journal*.

Rheumatism of Single Joints.

Rheumatism, as we know, is often a refuge for the destitute in the matter of diagnosis, and this fact may serve to explain the frequency with which inflammation of a single joint is ascribed to rheumatism. There are very good reasons in favour of the view that there is no such thing as single rheumatic joint disease. If joint disease be due to rheumatism, more than one joint will be involved, but multiple joint affections are not on that account necessarily rheumatic, witness the polyarthritides met with in gonorrhœa, syphilis, and sepsis. Disease of a single joint is either purulent, tuberculous, gonorrhœal, or is due to some central nerve lesion. If the disease commences in one joint and subsequently spreads to others it is presumptive evidence that the affection of the other joints is due to secondary infection. The distinction is not merely of interest from the point of view of scientific accuracy, for it may have, and often has, a very important bearing on treatment and prognosis.—*Medical Press and Circular*.

The Treatment of Pericarditis.

In the *Journal des Praticiens*, Deguy makes the following statements in regard to interference in cases of pericardial effusion. He first begins by stating that paracentesis of the pericardium is only indicated when the accumulation of fluid is so great as to be a menace to life, and to cause unduly feeble contractions of the heart, with a filiform pulse, precordial distress, and evidences of suffocation. When pus is present, these symptoms may be associated with great variations in temperature, profuse sweats, and chills, and under these circumstances pericardiotomy should be performed to permit the escape of the purulent fluid. Puncture of the pericardium is therefore to be considered as an operation of urgency, and the gravity of the prognosis depends not so much upon the operation

itself as upon the nature of the disease, the state of the heart, and the general condition of the patient. Deguy asserts that the puncture is without danger in cases of serous pericardial effusion, such as is met with in rheumatism. Different authors advise different points for operation. The third intercostal space on the left of the sternum has been recommended by Stevenson, Mader, Loebel, and Schuh, and puncture of the fourth interspace is recommended by Trousseau, Pirogoff, and Guerin; in the fifth interspace by Baizeau, Aran, Bouchut, and Raynaud; operation in the sixth interspace is recommended by Delorme and Mignon, Hare, Woinitch, and Sianijentzky. Still other investigators believe in puncturing at the right side of the sternum in the fifth interspace. Undoubtedly the exact point of puncture depends somewhat upon the physical signs of the disease which are present. The method of relieving the serous effusion varies, but probably the safest is to make an incision through the skin and subcutaneous tissues until the pericardium is approached on the left of the sixth interspace. Through this the trocar is gently pushed and the fluid removed.

Pericardiotomy is not justified except in the presence of pyopericardium, which arises either as the result of injury, or follows infection of the pneumococcus or other microörganism. Ollier recommends that an incision be made at the left of the sternum, and that the fifth cartilage be disarticulated. At this point it will be found that the pleura is intimately adherent. After the pleura is pushed aside, puncture of the pericardium may be readily accomplished. Still another method consists in resection of the xiphoid cartilage with subsequent incision of the distended pericardial sac. Trephining of the sternum for the purpose of entering the pericardial sac has now been abandoned.—*The Therapeutic Gazette*.

Peptonuria.—Ito. (*Deutsches Archiv. für klin. Med.*).

The writer has investigated a number of specimens of urine in order to determine the presence of peptone. The method employed was as follows:—The usual methods were used for albumin and nucleo—albumin and also the biuret reaction. About 300 cc. of urine were saturated with ammonium sulphate at a temperature of from 60° to 70°, allowed to cool, filtered, made alkaline with ammonium carbonate, again saturated with ammonium sulphate and then filtered again. The filtrate was then neutralized with acetic acid, again saturated with ammonium sulphate, and again filtered after boiling. The filtrate was then diluted with an equal quantity of water, and the peptone precipitated by tannin. The precipitate was filtered the following day, dried, dissolved in baryta solution, boiled, filtered, and the filtrate tested by the biuret reaction. In addition to the urine

of patients suffering from various diseases, rabbits were fed upon peptone and their urine tested, and all the reactions were positive. The results on human beings were positive in six and negative in two cases of croupous pneumonia; negative in two cases of suppurative pleuritis; positive in one and negative in four cases of suppurative phthisis; negative in eight cases of ulcer of the stomach; positive in one and negative in ten cases of confinement, and negative in two cases of pregnancy. All these cases were also tested by the precipitation of peptone with alcohol, and the results were 17 positive and 21 negative, as compared with eight positive and thirty negative by the method described. As, however, deutero-albumoses are also precipitated by this method, it cannot be depended upon for the recognition of peptone.—F. CRAVEN MOORE, in *Medical Chronicle*.

Researches on Tuberculosis—FERRAN (*Revue de Médecine*).

Up to the present time all attempts at procuring a specific therapeutic and prophylactic agent in the treatment of tuberculosis have practically failed; and yet the problem is by no means insoluble, since the vast majority of cases of tuberculosis undergo spontaneous cure. Failure has been due to a faulty conception of the bacillus of Koch and the pathology of tuberculosis. It is necessary to entirely remodel our ideas on the subject.

In the sputum from pulmonary foci there appears at a more or less advanced stage a new phthisical bacillus which agrees in its characters partly with the bacillus coli and partly with the bacillus of Koch. When present it is found in far greater numbers than the bacillus of Koch. It may be called the bacille phthisiogène or spermigène, because it is capable of producing profound cachexia and intense pneumonia, with or without tubercles, and because some varieties cultivated in suitable media involve spermine in quantities large enough to be recognizable by its odor.

In sputum it is a thin rod-like organism, but after cultivation for several generations in bouillon it attains the thickness and length of the colon bacillus. It stains readily, and is decolorized by mineral acids. It does not stain by Gram, possesses flagella and forms spores. It grows readily on ordinary media at room temperatures. It does not liquefy gelatine, it acidulates lactose media and cultures in peptone bouillon give an indol reaction. Certain races grown in liquid serum produce a large quantity of spermine, but none is formed in vacuo. The bacillus is an active reducing agent, especially in anerobic conditions. It retains its vitality in media for from ten days to five weeks. It is killed at 80° C. in five minutes, but is

unaffected by low temperatures. The serum of tuberculous patients or of immunized animals causes rapid agglutination.

Virulence and spermine production vary in different races, and are not always concurrent. Inoculated animals may be rapidly killed, extensive hemorrhagic edema occurring at the point of inoculation, or they may die after two to eight months, with emaciation, pneumonic patches, hepatitis and splenitis, the inoculated point first ulcerating and afterwards healing. The most important lesions are found in the spleen, liver, lungs, and kidneys, and are the result of an intense interstitial inflammation. In the lungs there are large and small foci of an intense dark carmine color, strongly contrasting with the normal lung tissue. These appearances are due to the active reducing properties of the bacillus. With less virulent cultures there are found more or less discrete tubercles in the spleen, liver and lungs, placed invariably in reduction areas. The number of tubercles is never sufficient to account for death, the severity of the disease is always dependent on the pre-tubercular pneumonia.

The bacillus of Koch or, in rare cases, the inoculated bacillus, may be demonstrated in the pneumonic patches, though generally no bacilli can be found. Histologically the tubercles are identical with those produced by inoculation of the bacillus of Koch, and reinoculation is followed by typical tubercular lesions containing the typical tubercle bacillus.

Sputa, in which the bacillus of Koch cannot be found, are capable of producing tuberculosis. In such cases the tuberculosis is caused by the bacille phthisiogène. The bacillus of Koch is not the sole agent of spontaneous tuberculosis. It is always accompanied by another bacillus, markedly saprophytic, very abundant, growing readily at ordinary temperatures and eminently capable of producing tuberculosis. It is far more probable that this bacillus, and not the bacillus of Koch, is the cause of the enormous diffusion of tuberculosis in man and animals.

The bacillus of Koch is merely a modified colon bacillus. In 1897 the author succeeded in modifying the bacillus of Koch so that it became motile and was decolorized by mineral acids after staining by the Ziehl-Neelsen method. In this condition it closely resembled the bacillus coli, gave an indol reaction, acidulated lactose media, and was agglutinated by the sera of tubercular animals. These observations were confirmed by Arloing in 1898 and 1900. The modification was effected by repeated cultures in broth, containing a gradually lessened quantity of glucose or glycerine, along with daily shaking of the tubes. All races were not modified with the same ease. Their powers of producing tuberculosis became rapidly diminished.

Modified races could be reconverted into the bacillus of Koch by the method of passage.

Ordinary colon bacilli can be converted into the bacillus of Koch. The colon bacillus of the dog is well suited for this experiment, and the author was struck with the strong resemblance between it and the bacille phthisiogène. Both are "phthisigenous," are convertible into the bacillus of Koch, cause cachexia, pretubercular pneumonia, and tubercles histologically identical with classical tubercles. Thus tuberculosis is merely a variety of colon bacteriosis. Similar results were obtained with colon bacilli from man and from the cat.

Anti-tubercular vaccination and immunization therefore require revision. Animals can be immunized against the bacille phthisiogène by repeated doses of dead cultures. The immunity is rather in the direction of preventing secondary and tertiary lesions. Local lesions occur in immunized animals, but their extent is less.

Spontaneous tuberculosis in man is produced by the bacille phthisiogène, the formation of tubercles is always preceded by pretubercular pneumonia. It is logical to assume that by immunization against the phlegmasia there would be obtained immunity against the subsequent tuberculosis.

The toxins of the bacillus of Koch obtained in vitro are not identical with those formed in an infected animal. The true tuberculo-toxin does not exist in a free state, and a true anti-tubercular serum cannot be got by the injection of toxins isolated from the bacillus of Koch or its cultures. The coagulation ferment is produced by the stimulus or contact of cells with bacilli, and at once combines with protoplasm. Hence it is difficult to bring about the formation of antibodies except by the injection of tubercular pus. Serum, so prepared, is anti-tubercular, but it necessarily contains a leuco-toxin, and it is to the presence of this leuco-toxin that the failure of anti-tubercular sera hitherto employed must be attributed.—ARTHUR SELLERS, in *Medical Chronicle*.

The Heart in Diphtheria.—CHAS. BOLTON (*Edinburgh Med. Jour*).

There can be no doubt about the statement that "cardiac failure is one of the most important as well as the commonest of the toxic effects of diphtheria." A large percentage of patients have signs of cardiac failure at some period or other of the disease, and death during the acute toxic stage unless due to an accidental cause, as asphyxia, is invariably the result of primary cardiac failure. The fatal termination, as Dr. Bolton says, usually takes place during the first fortnight of the disease, the onset of the signs being first noticed generally about the sixth day.

During convalescence its supervention is usually associated with the presence of some form of post-diphtheritic paralysis, and it may be secondary to or accelerated by some strain or shock. In this stage it is not so uniformly fatal as during the acute toxic period. It must, however, be remembered that sudden death from syncope may occur at any stage, though its supervention, when convalescence is established, is always referable to some strain.

In the non-fatal cases of heart failure the evidence consists of irregularity or intermittence of the pulse, with or without the physical signs of dilatation of the heart; at the same time there is usually increased rapidity or slowing of the pulse. With regard to the pulse, Dr. Bolton comes to the following conclusion:—

(1) It alters considerably both in degree of irregularity and in frequency during the 24 hours.

(2) These changes occur frequently, and often at very short intervals.

(3) On the whole the irregularity is most marked at night.

(4) As a rule, when the pulse becomes irregular, there is a diminution in its frequency, but this rule is by no means absolute.

(5) The irregularity coming on in the acute stage is a primary affection, but is, nevertheless, greatly affected by strain.

(6) The irregularity does not conform to any type.

(7) As a rule the patient appears quite well and suffers no inconvenience or distress on account of the heart failure.—*Medical Chronicle*.

SURGERY.

IN CHARGE OF EDMUND E. KING AND HERBERT A. BRUCE.

Seminal Vesiculitis.

In genito-urinary diseases, as in all others, the most important thing is to make a correct diagnosis, and in no other field is diagnosis more neglected. A good example of this is that the average doctor ignores the fact that there are such things as the seminal vesicles, or that they are ever diseased. Inflammation of these organs frequently give rise to a urethral discharge, which is usually labelled "gleet," and the patient treated for stricture. It is needless to say that the gleet persists in spite of the stretching, and will only yield when treatment is directed against the vesicles. Again, no patient should be convicted of "sexual neurasthenia" until an examination of the vesicles is made, for we often see a man's "neurasthenia" disappear as his vesiculitis is cured and sexual function restored.—*Col. Med. Jour*

The following deductions and conclusions arrived at by Dr. Irvin Abell in his very concise paper on the "Treatment of Tuberculosis of Testicle and Epididymis," in the *Journal of Dermatology*, July, 1902, are worthy of reproduction, and we here present them:

1. That the epididymis is the most frequent starting point of uro-genital tuberculosis.
2. That it is usually secondary to some other focus, but it may be a primary deposition.
3. That the testicle is rarely primarily affected, but as a rule secondarily so from the epididymis.
4. That when the epididymis is primarily infected through the blood-supply the process is probably an intertubular one.
5. That when secondary to other foci of uro-genital tract, constituting a descending infection, the process is probably intratubular.
6. That foci in other portions of the genital tract, or even distant lesions, do not necessarily contraindicate operation, since abundant clinical evidence proves that, when operated early, foci in genital tract recover as a rule, and healing of distant lesions following operation has been noted in a sufficient number of instances to invite further investigation.
7. That castration should be limited to those cases in which the process has invaded the testicle proper.
8. That epididymectomy with high resection of cord, after the method of Villeneuve, is to be practiced in all other cases.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES W. F. ROSS, ALBERT A. MACDONALD
AND K. McILWRAITH.

Abandonment of Vaginal Examination in Labor.—W. A. BRIGGS, M.D. (*American Medicine*, Feb. 1).

The information necessary to conduct labor can be obtained by other means than vaginal examination, and more fully, more exactly, at an earlier period of labor, and without the possibility of infecting the genital tract. These means are the usual ones of abdominal palpation and auscultation, pelvimetry, and those the writer now advocates—digital examination per rectum, simple and bimanual, and palpation of the perineum.

The technique of digital examination per rectum is similar to that of digital examination per vaginam:—Cleanse and disinfect the vulva and adjacent parts: place the patient on her back with the knees well flexed, and close to the edge of the bed; sit beside the bed on a low chair facing the patient: introduce

the disinfected and gloved right hand under the patient's right knee and the index finger into the rectum, carrying, if possible its tip to the sacral promontory, and the tip of the thumb to the pubes, and by their divergence estimate the conjugate diameter; place the left hand on the lower abdomen just above the pubes, and by gentle bimanual palpation map out the presenting part and determine its size, position, descent, mobility, and stage of evolution; should the head present, dip the fingers of the left hand down about the chin or the occiput, and the position may be determined even if the fontanelles and sagittal suture cannot be felt. With the tip of the finger carefully search for the os and cervix, and if they cannot be recognized continue the search during and after a pain, when, if dilation has begun, the alternate tension and relaxation of the cervical ring and of the bag of waters will direct attention aright; the sagittal suture and fontanelles should be sought and identified. Should the head recede before the examining finger it may be fixed by the left hand from above and even made more accessible by being pushed down into the pelvis. The simplicity and the clearness of this method of examination, and its results are surprising. The presentation, position, size, mobility, progress, os, cervix, bag of membranes—all may be made out clearly. Diagnosis of the position may be made at an earlier stage by the rectum than by the vagina.

Palpation of the vulva and perineum is not so important as rectal examination, but when the head descends well into the pelvis the mobility and the progress of the presenting part may be determined and the necessity of internal examination obviated. It is best performed by separating the index and second fingers of the pronated or supinated hand and pressing their tips (one on either side of the commissure) against the vulva or perineum during and after a pain. By these means, in all but operative cases, vaginal examination will be avoided.—*Medical Review.*

Early Diagnosis of Pregnancy.

During the greater part of the first three months of pregnancy almost the only reliable objective evidences of pregnancy are the structural changes in the uterus itself, which are stated by Jewett as follows: (1) Softening of the cervix; (2) size of the body and progressive growth at the rate of pregnancy; (3) extreme compressibility of the isthmus. Hegar's sign; (4) relative density of the median and lateral sections of the isthmus; (5) asymmetry and differential density of the body; (6) consistence and shape of the body as a whole. The first sign is not of much value before the end of the second month. Hegar's sign he considers of less value than that of the shape

and consistence of the corpus because it is not so readily appreciable. The change in the differential density of the isthmus is well marked by the fifth week, the middle portion which usually presents a dense longitudinal ridge by that time being less dense than the parts on each side.—*Medical News Amer. Med.*

Treatment of Puerperal Eclampsia.

Herman disagrees with those who contend that emptying the uterus is an almost certain means of arresting eclamptic convulsions. Schauta quotes from the records of the lying-in clinic of Vienna 342 cases of eclampsia, in 185 of which the fits began during labor. In only 62 of these did they cease on delivery, while they continued in 123, in 50 with increased violence. Brummerstadt gives a record of 63 cases, in 18 of which the fits ceased on delivery, in 17 became less severe, and continued unaltered in 28. Herman cites the figures of Dührssen, Olshausen and others showing similar results, and then reports from his own experience two cases of eclamptic fits with a temperature of about 105°. In the treatment the use of tepid baths reduced the temperature and resulted in the abatement and early cessation of the convulsions and final recovery of the patients.—*Amer. Med.*

Venesection and Transfusion in Puerperal Eclampsia.—By DR. R. ABRAHAMS.

The author asserts that the abstraction of blood in eclampsia produces (1) an immediately favorable change; cyanosis, muscle rigidity, spasms and twitchings, all stop at once. (2) The pulse loses its tenseness. (3) The coma yields, either abruptly or slowly, but surely. Transfusion (1) improves the pulse; (2) induces free sweating and free micturition; and (3) produces intense thirst, which causes the patient to drink copiously.

Benign Tumors Complicating Pregnancy.—By DR. BACHE M. F. EMMET.

The author would operate on all young women non-pregnant, to remove any fibroid of the uterus which is accessible. Should the young woman be recently pregnant, such a growth should be removed, if it is large, wherever situated. If it is in the body, small, and of slow growth, it should be left, but should be removed if in the lower segment or neck. If midway in pregnancy, such growths in the body should be left alone; if in the lower segment or neck, we should temporize, seeking to crowd them out of the pelvis, and try to tide over until the uterus has become thoroughly accustomed to the pregnancy

If such growths are discovered in the later months, operation should be resorted to only if they grow in the neck of such a size as to threaten to impede delivery. Operation should be from below. Tumors, however, may be so general and threatening that one is obliged to remove the whole uterus, even early in pregnancy.—*N. Y. Medical Record*.

Acute Gonorrheal Peritonitis.

Kolamenkin (*Vestnik Khirurgii*, August, 1901) publishes a genuine case, where an exploratory operation proved speedily fatal, and a bacteriological exploration proved what was the origin of the serous inflammation. A woman aged 34 was admitted into a hospital suffering from all the symptoms of acute general peritonitis. She refused all operative interference at first, but consented three days later. When the abdomen was opened, much serous exudation was detected, and there were false membranes on the intestinal coils and parietal peritoneum. The coils adhered to each other, but not firmly. The cecum and vermiform appendix were intact. In Douglas's pouch lay the ovaries, inflamed and much enlarged. It was thought good to remove them. But at the necropsy, ten hours later, purulent acute inflammation of the peritoneum, bladder, and genital tract were detected. The gonococcus, and no other germ, was detected in pus taken from the cervical canal, the appendages, the bladder, abscesses around the uterus, and the peritoneal cavity itself.—*Epit. B. M. J.*

Surgical Treatment of Puerperal Pyemia.

Trendelenburg (*Münchener Medicinische Wochenschrift*) discusses the different forms of pyemia, the difficulty of diagnosing puerperal pyemia, of differentiating it from other forms of puerperal infection, and its comparative frequency. Among 43 sections of women who died of puerperal infection, 21 had pyemic thrombosis. This is more difficult to treat surgically than otitis, or thrombosis of the transverse sinus, because it cannot be so readily and definitely located, since it may be in the hypogastric vein, or the ovarian vein or both, and on one or both sides. Trendelenburg, in conclusion, gives the history of a patient who suffered abortion in the second month, on August 31. September 16 there was a diagnosis of septic pyosalpinx. On the 19th the abscess was punctured and drained through the vagina, streptococci being found in the pus. As the symptoms continued, on October 12 there was a resection and ligation of the right hypogastric vein. Ten days later the chills returned, increasing in frequency and duration until November 12 when, through an incision from the angle of the eleventh rib backward, a piece 5 cm. in

length was resected from the ovarian vein, a greyish yellow thrombosis removed and the vein ligated. The chills grew milder, but did not entirely cease until, 16 days later, a subcutaneous, metastatic abscess was opened in the region of the shoulder blade. Three weeks later the patient left the hospital still weak, but entirely well. Trendelenburg says this is the first case of puerperal pyemia cured by resection and ligation of the veins, but he thinks more will follow, and hopes that eventually not only the chronic, but also acute forms of puerperal pyemia will be successfully treated by surgical means.—*Amer. Med.*

Treatment of Placenta Previa—Cesarean Section Not Justifiable.

Dr. Robert A. Murray, New York, in a contribution on this subject, referred to a paper read last year before the American Association of Obstetricians and Gynecologists, by Dr. Zinke, Cincinnati, on this subject, also to a discussion which it elicited. In Zinke's paper a strong plea was made for the treatment of placenta previa by Cesarean section. Dr. Murray protested against such a radical measure, and believes that by proper treatment one can avoid the performance of this operation in many instances. In fact, only a very small minority of cases of placenta previa should, in his opinion, be treated by Cesarean section.

Dr. J. Whitridge Williams, Baltimore, questioned the propriety of Cesarean section for placenta previa, and said the operation was done too frequently. Recent statistics as to the great safety attending this operation were liable to do almost as much harm as good. If the society did not take a decided position in regard to Cesarean section in cases of placenta previa, he feared that this operation might be practiced as frequently and indiscriminately as was oöphorectomy. In his opinion there was a small field for Cesarean section in placenta previa.

Dr. Edwin B. Cragin, New York, said the conditions were so numerous which would justify Cesarean section in placenta previa that they were seldom found present, and among them were a good condition of the child, good surroundings for the patient, and a cervix so rigid that there would be great difficulty in dilating it and resorting to version. These three conditions were rarely met with in cases of placenta previa. A fourth condition was central implantation of the placenta.—*N.Y. Med. Jour.*

Two Conditions Simulating Ectopic Gestation.

Dr. Edward P. Davis, Philadelphia, read a paper reporting a case of hematocele and one of retroverted gravid, simulating ectopic gestation. Second, Routier and Varnier have recently

reported to the Obstetrical Society of Paris similar cases. In obscure cases of hemorrhage in which a diagnosis is not evident, he thinks abdominal section is safer than continued uncertainty. Conditions simulating ectopic gestation usually require prompt interference and surgical treatment.—*Amer. Gyn. Soc. Jour. A. M. A.*

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN AND J. O. ORR.

Tuberculosis of the Iris.

H. Friedenwald (*American Medicine*, July 5th), says that there are three varieties of this:—

1. The first variety is unilateral and not accompanied by inflammation of the iris. In one or other iris appears a considerable prominence, which often has the appearance of a new growth.

2. Miliary tuberculosis of the iris:—This is more likely to be seen in both irides. Miliary tuberculosis is likely to cause inflammation in the iris; in other words, we have a case of iritis. Small yellow, yellowish-grey or grey elevations are observed on the surface of the iris, generally on the lower part.

3. In this form the tubercles are so small and so deep in the tissue of the iris as not to be visible to the naked eye. They are, however, apt to produce chronic iritis. Friedenwald details two interesting cases of miliary tuberculosis. In this connection Chalderero (*La Clinica Oculistica, in Journal of Eye, Ear and Throat*) may be mentioned. He reports four cases. The first patient was a girl, seven years old, with good family history. At the first examination, six days from the beginning of the disease, there was a slight periconal injection, the cornea was transparent and a wine colored exudate could be seen in the anterior chamber. The iris seemed a little darker than in the good eye, pupil contracted, immobile and oval. On the external margin a greyish brown nodule was seen. The pupil was covered with a greyish exudate. T=n. V=light perception. There was no pain. O.D. normal. Insipient tuberculosis was suspected. Treatment—hypodermic injections of sublimate atropine, warm applications and bandage. The eye gradually grew worse and became painful. Enucleation was advised and accepted. Recovery was rapid, but six months later the child died of probable tubercular peritonitis. The exudate from the eye was inoculated into the anterior chamber of the eyes of two rabbits. One rabbit died six days later without special symptoms. In the other animal on the 63rd day

the iris began to show small grey nodules. Two days later the aqueous was turbid. On the 72nd day the iris was infiltrated with a greyish yellow exudate. The eye became soft and atrophic. The animal was killed four months after the inoculation. The eye was filled with a white, caseous mass which, under the microscope showed pus cells, amorphous granules and small pieces of necrotic choroid. No bacilli found. The nodules from the iris showed giant cells. The second case had the same general symptoms as the first. The eye was enucleated and the patient died three months later of acute meningitis. The iris of an inoculated rabbit showed tubercular nodules on the 49th day. The iris from the patient's eye showed giant cells, but no bacilli. In case three, with same eye symptoms enucleation was practiced. Streptococci, staphylococci and tubercular bacilli were found in the exudates. The author calls attention to the three forms of tuberculosis of the iris, viz.: (1) Tuberculosis disseminata, occurring in about one-half of all cases. All ages are liable to be attacked. The pathognomonic symptom is the presence on the iris of greyish yellow or yellowish white nodules about the size of millet seeds. (2) Tuberculosis solitary or conglomerate in one-third of all cases. The tubercle is single and sometimes occupies the greater part of the anterior chamber. (3) Infiltrated tubercle of the iris, a true tubercular inflammation without the formation of nodules. Histological examination shows giant and epithelial cells. The prognosis is always bad. Medical treatment avails nothing. The most rational treatment is enucleation.

The "Absorption" treatment of Cataract, J. W. Wright (*The Ophthalmic Record*, June) raises strong objection to the use of this method, especially where an operation has to be performed. The treatment produces a flabby condition of the cornea. At least seven patients who were operated upon for cataract had the flabby condition of the cornea, and in these cases it was not unusual to lose vitreous. Strange to say, some physicians advise their patients to use this "infallible" nostrum, but Wright is satisfied that the "treatment," whatever it may be, is very injurious, and physicians should advise against its use.

J. T. D.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

Subcutaneous Injection of Paraffin in the Correction of Nasal Deformities.—MARMION SMITH (*New York Medical Journal*, May, 1902).

This is the presentation by photographs, taken before and after, of a number of cases of the condition known as saddle-back nose, in which the deformity had been partially removed and the personal appearance of the subjects greatly improved by the subcutaneous injections of paraffin at the site of disfigurement.

The deformity is caused by the destruction from one cause or other of the cartilages and bones supporting the external nose. For these cases but little can be done in the way of general surgery, and any other effectual method of treatment available should receive careful consideration. It is claimed that paraffin, having a melting point of about 110 deg. Fah., is both aseptic and non-irritant, and at the same time non-absorbable, and if injected at a temperature of about 115 deg. Fah. subcutaneously in the neighborhood of the nasal depression it can be moulded by the fingers into the shape of the nose, and by permanently supporting the integument will minimize the unsightly deformity, which would otherwise exist.

The depressed bridge is first anesthetised by hypodermic injection of solution of cocaine. A hypodermic syringe is next filled with paraffin melted at a temperature of 115 deg. Fah., and placed in a jar filled with water at a temperature of 120 deg. Fah. At the right moment the tissues are uplifted with the fingers of the left hand and the point of the needle inserted well beneath the skin, carrying its point beyond the site of greatest deformity. The injection is made slowly, at the same time gently withdrawing the needle and moulding the distended tissues to the required shape. The paraffin remains plastic for about half a minute, and can be moulded as desired during that time, after which it retains the acquired form.

There is usually some swelling and soreness with slight fever lasting two or three days or a week, but this subsides, and a good result follows. In some cases the patient remained in hospital for several days, and ice was applied, off and on, as required. In no case was there sloughing of the cuticle, though the eyelids sometimes swelled.

Saddle-Nose in a Woman Treated by Subcutaneous Injection of Paraffin.—SCANES SPICER (*Journal of Laryngology, Rhinology and Otology*, March, 1902).

The patient, aged 25, had suffered since childhood from nasal suppuration and fetor. The nose was tip-tilted and the nasal framework stunted. The bridge was depressed and covered with crescentic wrinkles.

In treating the case the skin of the nose was cleansed with alcohol and bichloride of mercury. Then a mixture of hard and soft paraffin was sterilized and injected at a temperature of 105 deg. F. with a glass hypodermic syringe, a hot water bath being used to keep the paraffin and instrument at the right temperature.

Ten or twelve syringefuls were injected to the amount of about six drachms. He was very careful to insure asepsis during the operation. The injections were made slowly into the parts where the bolster was most required, and were moulded during the act into form by an assistant. There was not the slightest reaction of any kind after injection in this case. He tried to make the shape of the bolster like an omelette beneath the skin. Although there was no pain, the skin of the nose looked tense and brawny for days after the operation, and the upper eyelids became edematous, which was somewhat persistent. In the left upper eyelid a nodule formed of the size of a large shot. To avoid accidents of this kind it was proposed to apply a strip of lead sheeting over the root of the nose, adapted to the skin, during injection to prevent the paraffin from invading the ocular tissues.

Gersung, of Vienna, the originator of this method of treatment, used injections of cocaine preparatory to inserting the paraffin. Scanes Spicer did not think this necessary, but intended in his next case to try small injections at intervals, and not to perform the whole operation at once.

Fibroma of the Nose.

W. Lincoln (*American Journal of Medical Sciences*, November, 1901) gives an instance of this rare affection, with details of the history, operative treatment and the result. It occurred in a male aged 18 years. There was a history of complete blockage of left nasal passage, frequent copious epistaxis from same side, and constant purulent discharge.

Patient was weak and emaciated, had broadened bridge, with frog-face, and pain over left side of face and head. On examination, a grayish tumor filled left nasal cavity from vestibule to posterior nares, pressing down the soft palate on that side, and interfering with speech and deglutition. No lymphatic swelling discoverable.

Attempts to remove the tumor by snare were unsuccessful, owing to the pressure of adhesions, while they occasioned severe hemorrhages. Microscopical examination of detached pieces showed the tumor to be pure fibroma; and external operation was decided upon.

An incision was made from near inner canthus of left eye, across bridge of nose to same point on right side; and thence directly down to right ala nasi. Next, pressing periosteum aside, the bones were cut through with Hey's saw, in the line of skin incision. The nose was also cut free from the upper lip, avoiding the gingivolabial fold of mucous membrane; and the septum divided in a line parallel to its anterior border, and connecting with the incision at the bridge. The whole nose was then turned over by strong forceps on to the left cheek, the hemorrhage being easily controlled by hemostatic forceps. By the use of a powerful electric headlight, an excellent view of the tumor was obtained.

After one or two ineffectual attempts at removal, a powerful wire snare was adjusted through the naris, and pressed into position by finger in the naso-pharynx. The latter was then packed with a sponge, the wire gradually tightened, and the growth removed. The operation was completed by curetting the pedicle, and burning with the Paquelin cautery. The nostril was packed with iodoform gauze, and the nose sutured in position with silk sutures. Although the patient required frequent stimulation with hypodermic injections of strychnine, he made a good recovery. The first packing was removed after 24 hours, and the second after a like interval; after which the nose was left open, and simple sprays used.

Subsequent examinations after recovery were made every few months, but there had been no recurrence 5½ years after operation. The writer concludes: "The interest in this case lies in the comparative rarity of the tumor in the nose, unaccompanied by similar growth in the naso-pharynx; and also in the satisfactory result secured by full exposure of the mass, and its thorough removal."

(As coincident with the above, possibly endo-nasal operative treatment, by the combined use of the electrical current and the galvanocautery, is not without interest, as witnessed in a similar case reported by the abstractor at the Laryngological Section of the American Medical Association at Baltimore in May, 1895, and published in *THE PRACTITIONER* for that year. In this case neither external nor oral incisions were made. The recovery was complete, and in eight years there has been no recurrence.)

Two Cases of Radical Cure of Ozena Under Influence of an Intercurrent Erysipelas of the Face.—MONTORS DE FRANCESO. (*Revue Hebde laryng., D'Otol. et de Rhin.*, March, 1902.)

This is the history of two cases, one occurring in a young girl, the other in a young lad, ages not given, in which severe ozena with atrophy of turbinals, partial destruction of bones and cartilages of the nose, presence of mal-odor and crusts, etc., were relieved; and the symptoms cured by the accidental occurrence of erysipelas of the face. As the latter disease was in each case recovered from, the former likewise disappeared.

Eye Disease in Tubercular Disease of the Nasal Mucous Membrane, and Treatment of the Latter with Lactic Acid.—KINSBERG (*Leitschr. für Ohrenheilk.*, Bd. 39, Heft 3.)

There were five out of nine nasal tubercular cases in which the lachrymal duct and eye were affected. What was more, they were all secondary to the primary disease in the nose. In treating these cases the writer obtained the best results with lactic acid, using solutions on tampons. They were inserted daily, and allowed to remain for three hours. They were found to act upon the diseased mucous membrane only, the normal tissue remaining almost unchanged.

Keratosis as Distinguished from Mycosis.

George Wood (*University of Philadelphia Medical Bulletin*, Vol. XIV., No. 11, January, 1902) quotes Kelly, of Glasgow, as saying:—

1. Keratosis appears in the prime of life; mycosis may affect any age.

2. The cause of keratosis is unknown; mycosis is generally caused by some local abnormality of buccal secretion or of the digestive tract; possibly by some diathesis, as rheumatism.

3. In keratosis the symptoms are slight or absent; in mycosis they are pronounced.

4. In keratosis the surrounding mucosa is normal, while in mycosis it is inflamed.

5. In keratosis the excrescences are tough, firmly adherent, and assume characteristic shapes; in mycosis they are soft and easily moved.

6. Keratosis is confined to some part of Waldeyer's ring, while mycosis may appear at any point between the mouth and stomach.

7. Mycosis shows a resemblance to other mycoses, as thrush and sarcinia, while keratosis does not (if we leave the leptothis out of account).

8. Local application will cure mycosis, while it has no effect on keratosis.

Secondary Hemorrhage on the Fifth Day after Tonsillotomy.

Lee Weber (*Laryngoscope*, April, 1902) reports the above-mentioned case recurring in a female child aged 6 years. Recovery took place. The writer considers the case as one of special interest owing to the length of time that elapsed between the operation and the attack of secondary hemorrhage, the usual time being two or three days.

Two cases were reported in *THE PRACTITIONER* of November, 1894, by the abstractor, in which secondary hemorrhage occurred on the fifth day. Both were males, and the ages respectively 6 and 22 years.

Acquired Deaf Mutism Probably Due to Impacted Cerumen in the Ears.—Rapid Recovery of Hearing and Speech on Removing the Wax.—MAVO COLLIER (*Journal of Laryngology and Rhinology*, April, 1902).

The title of the paper almost describes the case. The child, female, as a baby was bright and intelligent and could speak. At the age of two years she had typhoid fever. A year later had a virulent attack of measles, and was unconscious for fourteen days. She never had discharge from ears, but after this was deaf, and gradually lost the memory of words. At age of nine she was bright and intelligent in all other ways. An examination, which was difficult to obtain on account of unusually long and curved auditory canals, hard inspissated cerumen was found impacted in each. This was removed and the drum membranes found to be retracted and opaque, but otherwise healthy. Politzer's bag was used and the nose attended to. After this improvement hearing and speech were both remarkably rapid. In this case there were no adenoids, and the deafness must have originated entirely from the presence of the impacted cerumen.

Laryngeal Paralysis and Their Importance in General Medicines.—GLEITSMANN (*New York Medical Journal*, December, 1901).

In an interesting and scientific paper, the writer devotes much attention to the anatomical and physiological aspect of the subject. He deals with the experiments of Krause, Lemon, Storsley, etc., and shows, as taught by Krause, that the planatory cortical centre in dogs is located at the descending surface of the prefrontal convolution. Irritation of one of these areas by electricity is always followed by symmetrical bilateral adduction of the vocal cords, which always takes place when one phonatory centre has been experimentally removed or destroyed.

Adduction of the cords can also be produced by stimulating a small area in the bulbus. The fact, too, that acephalous monsters are able to cry indicates that phonation has a limit centre in the bulbus.

"The superior laryngeal nerve is the sensory nerve of the larynx, and only sends motor fibres to the cricothyroid muscles, while the recurrent is the motor nerve for all the intrinsic muscles of the larynx, and supplies the adductors as well as the abductors."

During life the normal state of the abductors is one of partial contraction, rendering the chink of the glottis during quiet respiration a little wider than when in the cadaveric position. Consequently, when abductor paralysis occurs, search for lesion of the nerve trunk should be made.

An Artificial Larynx.

Hankins (*Australas Med. Gaz.*), has devised an apparatus for use in those cases of total extirpation of the larynx where all sinuses between the oral cavity and the external air and all direct communication between the lungs and upper air passages are cut off. It consists of a bottle containing a stopper that has three apertures, one of which is opened for breathing and may be closed by the finger at will. The second communicates by rubber tube 4 inches long with vulcanite nipple for plugging the tracheal tube. The third tube begins in the bottle with a reed on the principle of that of a clarinet, and terminates outside the bottle in a No. 14 (English) soft rubber catheter cut off obliquely at the end, that is introduced through the nose for 6 inches, at which point it is arrested by vulcanite olive that plugs the orifice of the nostril. In ordinary breathing the first tube is left open, but when one desires to speak it is closed by the finger so that the air passes into the bottle from the trachea by means of the second tube, is caused to vibrate by the reed, and in this condition carried by the third tube through the nose into the pharynx, where the sound is formed into words and issues from the mouth. With an instrument using shorter column of air, as advised by Glück, the tone is very unnatural. —*International Med. Magazine.*

Editorials.

THE ONTARIO MEDICAL COUNCIL.

We publish by request in this issue an article, which appeared in the *Oshawa Indicator*, written in the interests of the Medical Defence Association. The author uses the "personal rancor and the virulent and intemperate language of a portion" of the Council as an argument in favor of legislative reform. In advocating reform why is it deemed necessary or advisable to call the Council, as at present constituted, a "legislative outrage:" why speak of "improper amendments clandestinely sought and fraudulently secured by interested parties?" why refer to "legislative injustice created by stealth, in defence of which the teaching bodies and their allies have been arrayed for years?"

We beg leave to remind the members of the Defence Association that these accusations and insinuations are serious. If certain members of our profession have been guilty of perpetrating injustice fraudulently and by stealth they should be exposed and punished if possible. These charges are not made in the heat of council wars, but deliberately, we presume, with some definite object in view.

Certain parties think that college representation should be abolished. Men who hold such opinions have a perfect right to do so. The writer, a teacher in a college, is perfectly willing to acknowledge that, but dislikes to be accused of fraud. Others think (and among these are included many Defence men) that college representation should not be abolished, but that it should be reduced. Now we happen to agree with this view, but we have no desire to discuss the matter in an angry way. We happen to believe also that the territorial representation is too large. The increase in such representation was due to the influence of men from territorial divisions. Fortunately no one has ever charged that the legislation necessary for such changes was fraudulently secured by interested parties.

We would like to assure the members of the Council that the profession of Ontario have a great respect for them individ-

ually and collectively. We feel that the record of the Council in a general way has been highly creditable to all parties in that body. We all feel, however, that there is an unnecessary blot on each year's record. The defence men have an excellent opportunity. For some inexplicable reason certain shrewd level-headed men got *rattled* at the last meeting of the Council, and inadvertently supplied their opponents with a lot of ammunition which may be used in the coming elections. Let the opposition carefully avoid the mistakes of the government party as to the use of intemperate language, etc. Let its members and sympathizers repudiate the intemperate language used by the anonymous writer in the *Vindicator*! Let the Defence Association show that it can rise equal to the occasion, and conduct its discussions without indulging in personalities, but rather in a way becoming to a body of educated and cultured gentlemen!

PUBLICATION OF THE TRANSACTIONS OF THE ONTARIO MEDICAL ASSOCIATION.

Many members of the Ontario Medical Association would like to see the transactions published in book form. We believe the majority of those in attendance at the last meeting favored such publication. The Publication Committee was asked to investigate the matter with a view of publishing the transactions of the last meeting. Two meetings of the committee were held under the chairmanship of Dr. J. J. Cassidy; and for certain reasons, which will be forthcoming at the proper time, it was decided not to publish the proceedings this year.

We have no authority to speak definitely as to particulars. We may say, however, that the views of the majority of the Association should be carried out. The matter will be brought before the Association at its next meeting.

Two difficulties present themselves in connection with such an undertaking. In the first place it requires an enormous amount of work to get a volume of transactions through the press before the subject matter gets to a certain extent stale. In the second place the expense is, in the writer's opinion, so great as to be out of all proportion to the intrinsic value of the publication.

The Canadian Medical Association, after careful consideration, published the transactions of one of its meetings something like twenty years ago. The result was not an unqualified success. Indeed it would be more nearly correct to say it was a dismal failure. Many of the state Associations in the United States have had such poor success in the same direction that they have ceased to publish their proceedings.

It has been suggested that the members should be required to pay the annual fee every year whether present at the meeting or not. We sincerely hope that such a requirement will never become law, because it would seriously curtail the membership, especially in districts distant from Toronto. For instance, a member after an absence of two years might hesitate to come from Windsor to Toronto, if he found that in addition to other items he were required to pay six dollars when he put in an appearance at the meeting. But some say he should pay his fee each year. Perhaps he should, but a good many won't. Many years ago such a rule was adopted by the Canadian Association; but it worked so badly that it was rescinded. We in Toronto should always aim at bringing as many from the outside as possible to the meetings, and avoid throwing the slightest impediments in the way.

Victoria Hospital, London.

The following staff was appointed, July 15th, at a special meeting of the Board called for that purpose. It comprises the present "outside" summer staff, and the staff named by the medical school: Surgeons: Drs. Williams, Wishart, Jento and Niven. Physicians: Drs. Hodge, McCallum, Drake and Geo. Wilson. Gynecologists: Drs. Meek, W. J. Stevenson, Moore and John D. Wilson. Obstetricians: Drs. Balfour and Hogg. Anesthetists: Drs. H. A. Stevenson and Pardee Bucke. Pathologists and Bacteriologists: Dr. Neu. Eye, ear, nose and throat: Drs. Norman Henderson and Butler. Consulting surgeons: Drs. Waugh and J. M. Piper. Consulting physicians: Drs. Moorhouse and McLaren.

THE ONTARIO MEDICAL COUNCIL.

LEGISLATIVE REFORM BADLY NEEDED.

Whatever the opinion heretofore may have been, on the part of the public, regarding the composition, authority, general character and functions of the Ontario Medical Council, we must say the display of personal rancor, and the virulent and intemperate language of a portion of that body, indulged in at the late meeting of the council, is calculated to bring disgrace upon the whole body, and to reflect upon the profession generally.

So far as the press reports go—and we have reason for knowing they fell much short of what actually occurred—it would appear that the principal transgressors in debate were representatives of some of the universities whose conduct was simply scandalous.

The necessity of a purely representative council, an elective council, as advocated by members of the Medical Defence Association and many others in the profession, is becoming more and more evident every year. A step in this direction is greatly needed, as it would afford protection against entrance to the council of ill-behaved members.

As a matter of fact, the whole constitution of the council is at fault. In our opinion, *no public corporate body should be permitted to exercise authority, having in effect the force of law, in which appointed, or non-elected members have a voice.* The principle is bad wherever allowed to exist, for, as a rule, appointed members, feeling safe in their positions and responsible to no one, act as autocrats, and become so carried away by the force of their irresponsibility, that tyranny, injustice and oppression invariably follow.

The Ontario Medical Council, besides being largely unrepresentative, is also hybrid, professionally, and is clothed with powers possessed by no other public corporate body in existence, and so long as this legislative "outrage"—admitted by the government to be such—is allowed to continue, the "infernal lie," "damn rascal," and every other unseemly expression and epithet will find vent from the mouths of irresponsible and ill-tempered members who, through appointment gain admittance to the council.

Many of the representatives in the Ontario Medical Council, we feel sure, know how to govern their language in debate. It would be deplorable indeed, and a reflection upon the profession if such were not the case. But when a concerted onslaught of violent and intemperate language, from the seats of a few appointed representatives of any corporate body, is directed

against one, two, or more of a minority of that body, and the attack, whether abetted or not, is allowed to proceed without protest or restraint, the onus and disgrace of such conduct fall equally, in the eyes of the public, upon the presiding officer and other members not engaged in the attack.

The Ontario Medical Act, as it at present stands, seems to have caused, from the outset, no end of trouble and division, and is responsible for a large supply of acrimony between the contending sections of the profession. The Act, as at first passed, though an outgrowth of school jealousies and sect rivalry, we believe, was generally regarded as a move along the line of useful legislation: but improper amendments since, clandestinely sought and fraudulently secured by interested parties, have given rise to no end of dissatisfaction, and must prove harmful so long as they are allowed to exist. Indeed, they have already seriously disturbed harmony in the profession.

That serious wrongs exist as a result of these improper amendments, and that redress is needed, is strongly evidenced by the violent and offensive spirit in which in the council and before the legislature all attempts at reform have been resisted. The more logical and more strongly legislative reform is advocated by Dr. Sangster and other members of the Medical Defence Association, the more vicious and abusive the appointed and irresponsible element in the council becomes. This fact in itself indicates the possession of unjust and arbitrary power which the ruling faction in the council fear it will lose.

If the legislature does not, at its next session, provide a remedy for existing grievances under the Act, the influence of public opinion will surely, sooner or later, step in and make itself felt in correcting a legislative injustice, created by stealth, in defence of which the teaching bodies and their allies have been arrayed for years, and concerning which both the government and members of the legislature have apparently manifested a notable and shameful degree of indifference.—*Oshawa Indicator*.

Personals.

Dr. John Wishart, of London, Ont., has recently returned from England.

Dr. George E. Millichaup, of Toronto, has removed from Church Street to 49 Carlton Street.

Dr. Gordon C. Draeseke has been appointed house surgeon to the Western Hospital of Toronto.

Dr. Martin, of last years staff in the Toronto General Hospital, will practise at Port Arthur.

Dr. D. J. Gibb Wishart, will spend the month of August on his island at the Madawaska Club, Go-Home Bay.

Dr. Hugh McCormick of Auburn, Wis., was married June 25th, to Miss Alice Evelyn Sutherland, of Milwaukee.

Dr. H. S. Hutchison, after spending a few months at Gravenhurst in the Sanatorium, will probably settle in Toronto.

In a letter received by Dr. Crawford Seadding, July 12th, Dr. Bertram Spencer said his condition was considerably improved.

Dr. Thomas McCrae, of John Hopkins Hospital, Baltimore, passed through Toronto, June 22nd, on his way to his old home at Guelph.

Dr. Frederick Cleland, one of last year's staff Toronto General Hospital, left Toronto, July 25th, for New York, where he has commenced practice.

Dr. J. A. Roberts, Captain of the Field Ambulance Corps, returned from South Africa July 24th. Dr. J. T. Clarke gave a pleasant at home on the same evening, when a large number of Toronto physicians met to extend a cordial welcome to Captain Roberts and some of his brave comrades who so signally distinguished themselves in South Africa especially after the battle of Hart's River.

Book Reviews.

Surgical Technic. A Text-Book on Operative Surgery. By FR. VON ESMARCH, M.D., Professor of Surgery at the University of Kiel, and Surgeon-General of the German Army, and E. KOWALZIG, M.D., late First Assistant at the Surgical Clinic of the University of Kiel; Translated by Professor Ludwig H. GRAU, Ph.D., formerly of Leland Stanford Junior University, and William N. SULLIVAN, M.D., formerly Surgeon of U.S.S. "Corwin" Assistant of the Surgical Clinic at Cooper Medical College, San Francisco. Edited by Nicholas SENN, M.D., Professor of Surgery at Rush Medical College, Chicago, with fourteen hundred and ninety-seven illustrations and fifteen colored plates. New York and London: The Macmillan Co., Limited. Toronto: G. N. Morang & Co.

The work we have before us is the volume which won the German Empress's prize, on the occasion of the Vienna World's Exhibition, for the best hand-book of Surgical Technic. It is superfluous to praise so distinguished a gentleman as von Esmarch, and it is with the greatest of pleasure that we welcome a translation of this book to the English language. The work is one that is most thorough and complete, and begins from the earliest treatment of simple wounds through technique of dressing, appliances and operations, giving a description of the thoroughness with which the German surgeon handles his work. In the chapter on the treatment of wounds we are exceedingly pleased to note the warnings that are given in reference to many antiseptic solutions in common use. The toxic effects that may be produced by their long continued use—the recognition of the symptoms produced and the safeguards to prevent their occurrence is very clearly brought out. The subject of the many antiseptics that can be used is very elaborately treated, and their weak and strong points beautifully brought out. While we do not believe that the surgeon whose armamentarium is largest is better than the one who confines himself to the few well tried helps, yet all surgeons should be acquainted with the many drugs and appliances in use.

The dressing of the wound is described with great minuteness. This point we greatly appreciate. We fear that this subject is often overlooked by students; the striking point about operations and wounds, from a student's standpoint, is the brilliancy of the operative technic; in many instances they leave the operating theatre before the dressings are applied, and rarely see the patient after; only those few who have clinical advantages as hospital internes really become acquainted with the technic of surgical dressings. If it was only for these first chapters the work is one that would thoroughly repay its purchase.

The work differs largely from most German works in its freedom from verbosity. What is to be said is said in the fewest words commensurate with accuracy. The descriptions here are precise, yet thoroughness is by no means overlooked. The portion dealing with anesthesia is treated of from two stand-points—chloroform and ether. The author does not allow us to know which he favors most, but the pros and cons on the subject are thoroughly put forward. The local anesthetics are referred to, and the strong advantage that Schleich anesthesia has over the other forms, for many minor, and some major, operations, is pointed out. The details of the minor operations are as thoroughly entered into as those of the major ones. It is really from points like these that the greatest advantage of such an admirable treatise can be attained. We cannot speak too highly of the work: there are few surgical operations that are not thoroughly described or referred to. It is a volume on surgery—surgical technique—that is a great addition to the already large number existing in the English language, and is one that should be in the hands of every practitioner who wishes to be thoroughly informed on surgery, or requires a work for immediate reference. We can almost class it as an encyclopedia on surgical subjects. The publishers were exceedingly fortunate in securing so distinguished an editor as Dr. Nicholas Senn. They have presented their work with their usual elegance of typography and illustrations, and we bespeak a large sale for the volume.

Progressive Medicine, Vol. II, June, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by H. BART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 28 illustrations. Per volume, \$2.50, by express prepaid to any address. Per annum, in four cloth-bound volumes, \$10.00. Philadelphia and New York: Lea Brothers & Co., Publishers.

The June issue of *Progressive Medicine* contains a series of valuable contributions on subjects of great importance to the general practitioner.

Dr. Wm. B. Coley considers the Surgery of the Abdomen, including Hernia. His article is full and thoroughly practical, illustrating the great field for surgical therapeutics in the treatment of many diseases of the digestive organs which have hitherto been considered as solely medical affections.

Dr. John G. Clark covers the field of Gynecology with great thoroughness. All the new operations and devices for the treatment of diseases of women, as well as advances in gynecological pathology and technique are fully considered.

Dr. Alfred Stengel in his article on the Diseases of the Blood

and Ductless Glands, the Hemorrhagic and Metabolic Diseases, handles these difficult subjects in such a lucid and practical way as to make his contribution of value not only to the pathologist, but also to the physician, who, from the exigencies of his work, may find difficulty in keeping pace with the most recent advances which have been especially remarkable in the study of the blood.

The article on Ophthalmology by Dr. Edward Jackson is marked by its author's characteristic facility of dealing with the subject in such a way as to be of value to the oculist and at the same time to meet the needs of the general practitioner.

As usual, illustrations are employed liberally wherever they can aid in the elucidation of the text. The abstracts are full and give the complete gist of the original papers from which they are taken. Their value is greatly enhanced by the comments of the various editors upon them.

Diseases of the Nose, Pharynx and Ear. By HENRY GRADLE, M.D., Professor of Ophthalmology and Otology, Northwestern University Medical School, Chicago. Handsome octavo of 547 pages, profusely illustrated, including two full-page plates in colors. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$3.50 net. Canadian Agents: J. A. Carveth & Co., Toronto.

This volume is intended to present diseases of the Nose, Pharynx and Ear as the author has seen them during an experience of nearly twenty-five years. In it are answered in detail those questions regarding the course and outcome of diseases which cause the less experienced observer the most anxiety in an individual case, questions to which an answer is not easily obtained from text-books. In the therapeutic part of the work the author has given detail only to those procedures which have withstood the test of critical experience. Topographic anatomy being a requisite for all surgical work, the author has wisely devoted liberal space to this branch of the subject. The numerous illustrations are exceptionally accurate in their portrayal of the pathological conditions, especially so the two full-page colored plates.

A Manual of Practical Medical Electricity, the Roentgen Rays and Finsen Light By DAWSON TURNER, B.A., M.D., F.R.C.P., F.L., M.R.C.P., Lond., Fellow of the Physical Society; Lecturer on Experimental Physics, Surgeons' Hall, Edinburgh; Additional Examiner in Experimental Physics to the Edinburgh University; Medical Officer in Charge of the Electrical Department of the Royal Infirmary, Edinburgh. Third edition, revised and enlarged. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden.

We have before us the third edition of this admirable work, which is an improvement on the previous editions by the addition of Chapters on Roentgen Rays and Finsen Light. There

is one particular advantage that we note in this volume, and that is the thoroughness with which the subject is treated of, in detail. The detail of production of electric energy in its many forms is considered of sufficient importance to be elaborated on, and yet there is no unnecessary repetition. The subjects are so divided that one follows from the simple primary condition through the complex generality of electricity, with a conciseness and clearness that is pleasing to find. It is not possible to take out any particular chapter and review it, simply because they are all so thoroughly interwoven and connected one with the other, that it is only as a book on the whole subject that it can be dealt with. Points that are more easily elaborated by illustration are fully gone into, and the illustrations are numerous and clear, each one bringing out its point in the clearest possible manner. In treating of the subject of Electro-Surgery, under the subject of Strictures, the matter is put very clearly here, and if other authors would undertake to place the matter in this same fair way it would do away with a great deal of prejudice that exists at the present time against the use of Electrolysis. Electrolysis in experienced hands is undoubtedly good treatment, but in the hands of those who do not pay the closest attention to details, and are not armed with the best appliances, it is liable to be a source of great danger. Where Electrolysis is not a success it is very liable to be a source of considerable danger by increasing the severity of the existing disease. In reference to the chapters on Roentgen Rays and Finzen Light, they are fully up-to-date, yet at the same time a little more condensed than we would liked to have seen. They describe the conditions concisely, and one can appreciate the great advantage that in future will be gained by their use. We can thoroughly recommend the book, and compliment the publishers on the manner in which the work is presented.

Practical Diatetics, with Special Reference to Diet in Disease. By W. GILMAN THOMES, M.D., Professor of Medicine in the Cornell University Medical College in New York city. Second edition. New York: D. Appleton & Co., 1902; Toronto: Morang & Co., Canadian Agents.

A good book and a practical one. The author divides this work into nine parts. The first deals with foods and food preparations. Part II, stimulants, beverages and condiments. Part III, cooking, food preparation and preservation: the quantity of food required. Part IV, foods required for special conditions. Part V, food digestion and conditions which especially affect digestion. Part VI, the general relation of food to special diseases; diseases which are caused by dietetic errors. Part VII, administration of food for the sick. Part

VIII, diet in disease and diet in infectious diseases. Part IX, rations, dietaries. Such is the bill of fare presented to the reader, and it is an elaborate one, varied to meet the requirements of all kinds and conditions of men under all the changing circumstances of life in health and disease, from the cradle to the grave.

Quain's Dictionary of Medicine. By various writers. Third edition, largely re-written and revised throughout. With 14 colored plates and numerous other illustrations. Edited by H. MONTAGUE MURRAY, M.D., F.R.C.P., joint lecturer on Medicine, Charing Cross Hospital Medical School, and Physician to Out-patients, Charing Cross Hospital; Senior Physician to the Victoria Hospital for Children, Chelsea, and to the Foundling Hospital; assisted by John Harold, M.B., B.Ch., B.A.O., Physician to St. John's and St. Elizabeth's Hospitals, and Demonstrator of Medicine at Charing Cross Medical School, and W. Cecil Bosanquet, M.A., M.D., M.R.C.P., Physician to Out-patients, Victoria Hospital for Children, Chelsea, and Pathologist to Charing Cross Hospital; late Fellow of New College, Oxford. New York: D. Appleton & Co.; Toronto: The Geo. N. Morang Co., Limited, Canadian Agents, 1902.

The object of the publishers and of those responsible for the new edition of this dictionary has been to produce a book that shall serve as a reliable and available work of ready reference for the practitioner and student of medicine.

The general scheme of the book—as planned by the late Sir Richard Quain and his assistant editors—has been preserved, and the special emphasis laid on the diagnosis and treatment of disease has been maintained, although the pathology and etiology have also been very carefully considered and revised.

Some departure from the original plan has been deemed advisable. Many articles—excellent in themselves, but not in accord with the special object in view—have been omitted, while repetitions, as far as possible, have been excluded.

It is never an easy matter to *review* a dictionary; it is doubly difficult to review one such as this. The amount of work done by the editor and his assistants has been enormous. One can realize this in part when he learns that the list of contributors numbers two hundred and eighty-four, including the cream of Great Britain and Ireland. We have only to say in conclusion: the book is a grand one, and should be owned by every practising physician in Canada.

Correspondence.

IS MUSKOKA A GOOD PLACE FOR CONSUMPTIVES?

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

A great many times I have been asked and received written enquiries, as probably others have, in respect to Muskoka as a locality for consumptives. Having for ten or twelve years given a good deal of attention to the meteorological conditions and elevations (from railroad grades) of many localities in Ontario and Quebec, I must state that I think it is not a good locality for such patients.

When it was first proposed to build the Sanitarium of the National Association at Gravenhurst, I offered the Association, through Mr. Gage, the benefit of my little investigations, warned them of the danger of building there, and told them that within twenty miles of Toronto there was a much better locality.

Muskoka is a very desirable place, especially in June, July and August, for the over-worked or worn out neurotic, for persons generally run down, for those seeking rest or pleasure, but it is too damp and otherwise very unsuited for the tuberculous.

For one example: A patient now under my care spent last summer in Huntsville. She was not benefited in any way, evidently, but observed the moist air, with evening and morning mists, almost daily. And who can name a case of well marked pulmonary tuberculosis, say in the early second stage, who has been in any marked measure benefited by residence there? And who, on the other hand, cannot name case after case of patients in the earliest stage who went up there from this city and after a residence of perhaps one or two years came back home and soon died?

A well-known Toronto practitioner remarked to me not long ago that he could always wring water from his shirt after it had hung in his room all night when up there.

A physician who has resided many summers in Muskoka told me but the other day that while there a great many consumptives consulted him and he urged them all to go at once to some drier locality.

It seems to me too much like sending consumptives into the lion's mouth, or "into the jaws of death," to send them there.

The best locality I know of, I may add, where the air is dry and fairly crisp and sparkling, with highly vitalized

oxygen, is on the Gatineau Mountains, north of Ottawa, about midway between the great lakes and the Atlantic.

In the more elevated eastern parts of Algonquin Park and farther north near the great water shed, the conditions are more favorable than in Muskoka. Coming nearer home we have the Caledon Mountains and also pine and oak ridges, less than twenty miles from Toronto, both hundreds of feet more elevated than Muskoka, with a drier atmosphere, a good deal of sunshine, and a soil well adapted for such patients.

EDWARD PLAYTER.

Obituary.

ROBERT JOHN GUNN, L. R. C. S., EDIN.

Dr. R. J. Gunn, of Whitby, died at his residence, June 24th, aged 89. He had resided in Whitby fifty-three years, was Mayor of the town on several occasions, and jail surgeon for thirty years.

EDWARD HENRY HORSEY, M.D., M.P.

Dr. Horsey's many friends were shocked to hear of his death by accident on the evening of July 23rd at the age of 35 years. He was struck by a fragment from a bursting fly wheel in the Sun Portland Cement Works, Owen Sound, of which he was the principal stockholder. His skull was fractured and he died in a few hours. He graduated M.D., in Queen's in 1888. After practising a short time, he dropped medicine and became manager for the Sun Life Insurance Company in Asia. He spent some years in China, Japan and India and returned to Canada about four years ago. After a short stay in Toronto he went to Owen Sound, where he was engaged in several business enterprises. In 1900 he was elected member for the Commons. He was one of the most lovable, popular and able men in Canada. He left a widow, daughter of Dr. Peter Macdonald, Wingham, Deputy Speaker of the House of Commons, and two young children.

A CONTRIBUTION TO THE THERAPEUTICS OF ANEMIC CONDITIONS.

By DR. HERMANN METALL,

Assistant Physician to the General Polyclinic, Vienna.)

(Translated from the German.)

In the medicinal treatment of the various forms of anemia, whether it be essential chlorosis or the so-called secondary forms arising from severe loss of blood and various diseases (tuberculosis, cancer, etc.), iron has always occupied the most prominent place. In the management of chlorosis, especially, the chief object is the administration of an adequate quantity of iron, since upon this depends the success of all treatment. As to the manner in which iron acts in anemic conditions, that is a secondary matter. Whatever be its mode of action, it remains an empirical remedy and yet one of incontestable value.

According to the unanimous opinion of many authors, the effect of iron in chlorosis cannot be replaced by alimentation. Reinert, Klein, Immermann, Ensli, and others have shown that typical chlorosis cannot be cured in any other way, even by forced feeding. Some of them have made a series of very careful experiments for this purpose, and reached the remarkable result that during superalimentation, extending even over a number of weeks, the quantity of hemoglobin in the blood increased scarcely a few per cent., and remained permanently at this level. That this is actually so we daily convince ourselves in cases of chlorosis in girls of the better classes. These girls, if placed on a full diet, accumulate more fat, while the chlorosis remains practically unaffected—it requires iron. The dietary therefore plays a subsidiary part in the therapy of chlorosis (Klein), and is to be regarded only as an important adjunct to the treatment.

I will now devote a few words to manganese, which is employed in combination with iron in some ferruginous preparations for the treatment of anemia. Hannon already directed attention to this method, which is a constituent of healthy blood, and which besides iron has an important bearing on the absorption of oxygen by the blood. In fact, experiments have shown that anemic conditions are most successfully treated with iron in connection with manganese. Chalybeate medication is materially aided and promoted by the addition of manganese. Efforts have therefore been made to introduce combinations of iron and manganese into therapeutics.

After laborious attempts, Dr. Gude, chemist, succeeded in producing such an iron-manganese preparation, which is easily

absorbed by the entire intestinal tract, evokes no concomitant effects, and, as is illustrated in the following histories of cases, has proved an excellent remedy for the formation of blood. The preparation referred to is Pepto-Mangan (Gude). It contains iron and manganese in an organic combination with peptone, and is a clear fluid, resembling dark red wine, of an agreeable, non-metallic, non-astringent taste.

The advantage of this preparation is that it exerts a stimulating effect upon the blood-forming organs, these being excited to greater functional activity, and that the favorable effect manifests itself even within a short time by an increased oxygenation of the blood. At the same time, this chalybeate, as already mentioned, causes no digestive disturbances and does not injure the teeth.

In regard to the daily dose of iron, Quinke maintains that it should range from $\frac{3}{4}$ to $1\frac{1}{2}$ grains of Fe. Most clinicians prescribe commonly 4 grains, which considerably exceeds the maximum dose recommended by Quinke. Some of them, like Niemayer and Trousseau, give even 7 grains of metallic iron daily; hence Pepto-Mangan (Gude) should be prescribed in doses of one tablespoonful three times daily for adults, and one teaspoonful twice daily for children up to twelve years, after meals. Sour, fatty foods and red wine should be avoided during its administration. The preparation is much relished by all patients, and it is my custom to administer it to children in water, or, better, in cold milk with the addition of sugar, in which form it is very palatable.

After this brief introduction I will describe a number of cases which have been treated by me with Pepto-Mangan:

CASE I.—Mary B., 16 years old, has complained since a week of general debility and lassitude. She is very pale and restless, has no appetite, and suffers from headache and a feeling of pressure in the stomach. She is constipated, and the menses are irregular. Diagnosis, chlorosis.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 2 . . .	2,480,000	20	49.2	Pepto-Mangan (Gude), one tablespoonful three times daily.
August 9 . . .	3,212,000	25	50.	
August 16 . .	4,020,000	30	50.5	
August 24 . .	4,300,000	40	51.3	
September 2 .	5,000,000	50	53.4	

After a week, the appetite was good, no headache; at the end of the second week, no further disturbances; menses not pain-

ful, and lasting only three days (formerly five days). After four weeks, the patient discharged cured.

CASE II.—Anna H., 23 years old, has suffered for three years from chlorosis, with irregular menstruation, palpitation of the heart, a feeling of weakness, and occasional syncope. Physical examination showed the presence of anemic murmurs over the heart, as well as a venous murmur; no fever or edema.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 4. . . .	3,750,000	35	55.5	Pepto Mangan (Gude), one table-spoonful three times daily.
August 29. . .	4,010,000	60	57.8	
September 14	4,200,000	70	59.	

Appearance of menses after absence of 12 weeks: subjective disturbances have disappeared.

CASE III.—M. W., 16 years old, has suffered since a year from headaches, dyspnea, tinnitus aurium, vertigo, and gastric disturbances. There was marked pallor of the face and of the mucous membranes: systolic murmurs over the mitral and pulmonary valves, with dilatation of the heart. No fever: spleen not palpable. Diagnosis, severe chlorosis.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 5. . . .	2,250,000	25	52.5	Pepto-Mangan (Gude), one table-spoonful three times daily.
August 13. . .	3,200,000	30	53.5	
August 16. . .	3,350,000	35	55.5	
August 23. . .	3,530,000	40	56.5	
September 1.	4,250,000	45	58.	

The subjective symptoms rapidly subsided, the appetite improved, and the stools became regular. The menses reappeared in the second week of treatment, after having been absent for a year.

CASE IV.—M. P., 15 years old. Menses absent since one-half year; always scanty. Vicarious hemorrhages from the nose. Since three months the patient has suffered from dyspnea, vomiting, cardiac palpitation, general weakness, headaches, feeling of dulness and sleeplessness. Physical examination reveals anemic murmurs, moderate dilatation of the heart, venous murmur.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 5 . . .	2,400,000	20	47.	Pepto-Mangan (Gude), one table- spoonful three times daily.
August 10 . .	3,600,000	25	47.5	
August 16 . .	3,850,000	30	48.5	
August 23 . .	4,250,000	35	49.0	
August 31 . .	4,700,000	40	49.7	
September 7 .	5,000,000	45	52.	
September 14	5,200,000	50	53.	

After the first week improvement set in: at the end of treatment disappearance of all disturbances. Increase of bodily weight, 12 pounds.

CASE V.—J. K., 18 years old. Chlorosis. Anemic murmurs, cardiac dilatation, loss of appetite, insomnia, general lassitude, and headaches.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 10 . .	2,200,000	35	52.	Pepto Mangan (Gude), one table- spoonful three times daily.
August 24 . .	3,000,000	45	55.	
September 12	3,300,000	60	57.	

At the end of the first week appetite vigorous: headaches had subsided. At the end of the fourth week no disturbance of any kind.

CASE VI.—A. N., 19 years old, has suffered from chlorotic disorders since two years. Improvement occurred under a milk diet and a sojourn in the country. Since five months the patient again complains of disturbances: palpitation of the heart, lassitude, headache, vertigo, tinnitus, and constipation: anemic murmurs and venous hum perceptible.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 17 . .	4,500,000	25	53.5	Pepto-Mangan (Gude), one table- spoonful three times daily.
August 25 . .	4,100,000	30	54.	
August 31 . .	4,000,000	35	54.5	
September 7 .	3,950,000	40	56.	
September 22	4,200,000	45	57.5	

The subjective symptoms diminished after a few days. The disturbances disappeared, the appetite improved, and the stools became regular.

CASE VII.—J. R., 20 years old, has suffered from chlorosis since two years. Status *presens*: General lassitude, palpitation of the heart, a feeling of pressure in the stomach, difficulty in breathing; menses irregular as well as dysmenorrhea. In the last three months all the disturbances have become more intense.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 22 ..	4,250,000	30	52.	Pepto-Mangan (Gude), one table- spoonful three times daily.
August 26, ..	4,350,000	35	52.5	
September 5.	5,420,000	40	53.5	
September 12	5,300,000	50	54.	
September 18	5,350,000	55	54.5	
September 27	5,300,000	60	55.5	.

The disorders have disappeared, the appetite is good, and the bowels regular; no anemic heart murmurs.

CASE VIII.—L. N., 19 years old, complains of headaches, cardiac palpitation, vertigo; scanty menses.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
August 28, ...	2,500,000	40	54.	Pepto-Mangan (Gude), one table- spoonful three times daily.
September 13	3,750,000	55	55.5	
October 1, ...	4,300,000	70	57.	

The subjective disorders have vanished; menses more abundant.

CASE IX.—J. M., 16 years old, has suffered since two months from palpitation of the heart, dyspnea, feeling of pressure in the stomach, vertigo, tinnitus, and headaches. There is a slight cardiac palpitation, with systolic murmurs and a venous hum. Anorexia and constipation are present. The menses have been irregular since a year.

Date.	Red Blood Cells in Cubic Millimetre.	Hemoglobin per cent.	Bodily Weight.	Therapy.
September 2.	4,500,000	35	50.	Pepto-Mangan (Gude), one table- spoonful three times daily.
September 11	4,750,000	40	50.	
September 20	4,850,000	50	51.	
September 29	4,950,000	55	52.	

Menses regular; bowels normal; no disturbances.

CASE X.—Z. F., 30 years old, had a miscarriage two weeks

previously, with profuse hemorrhage. After a month's treatment completely restored to health, and an increase of weight of four pounds.

CASE XI.—A. N., six years old: rachitis and anemia. Under treatment an increase of weight of two-thirds of a pound. Much better appearance.

CASE XII.—J. W., 30 years old. Pulmonary tuberculosis and anemia. After two weeks' administration of Pepto-Mangan (Gude), an increase in weight of two pounds and an increase in hemoglobin of *fifteen* per cent.

CASE XIII.—K. L., 50 years old. Cancer of the stomach, cachexia, and anemia. During three weeks' use of Pepto-Mangan (Gude) the patient felt better, the appetite had improved, and there was an increase of weight of two-thirds of a pound.

CASE XIV.—A. B., 14 years old. Chlorosis; hemoglobin 40 per cent. After two weeks' treatment, hemoglobin 85 per cent.; disappearance of all disturbances.

CASE XV.—F. K., 18 years old. Chlorosis; hemoglobin 35 per cent.: after two weeks' treatment 50 per cent.

CASE XVI.—E. J., 5 years old. Anemia following scarlatina. After eight days' treatment with Pepto-Mangan (Gude) the patient developed a vigorous appetite, and recovered so rapidly that he could be discharged cured at the end of the second week.

Altogether, twenty-three cases of anemia were treated with Pepto-Mangan (Gude), of which 12 showed a normal hemoglobin per cent. of the blood after fourteen days, five after three weeks, and five after a month. On the other hand, one of the patients who had hereditary trouble (her father having suffered from pulmonary disease) was discharged only improved, the blood, after two months' treatment with Pepto-Mangan (Gude), showing only an increase of hemoglobin to 75 per cent. This was probably a case of tuberculosis which simulated an obstinate or severe chlorosis at its beginning.

Furthermore, two cases of acute anemia after profuse hemorrhages were treated with Pepto-Mangan (Gude). A favorable result was obtained as early as the end of the first week. In one instance the patient felt so well that only the fear of further hemorrhage constrained him to stay in bed for another week. In the case of three women who had miscarried during the early months of pregnancy, and were making a very slow recovery from the resulting anemia, I was able to obtain a complete recovery after four weeks' administration of Pepto-Mangan (Gude). In six other instances of weakness and anemia following acute and chronic disease (tuberculosis, carcinoma, scarlet fever, etc.), a disappearance of the feeling of

weakness, and a considerable improvement of the general health could be observed in every instance.

The histories cited above will afford conclusive evidence of the high therapeutic value of Pepto-Mangan (Gude). Unpleasant concomitant effects and disagreeable sequelæ were *never* observed during the use of the remedy. Eructations, pressure in the stomach, and nausea were never noticed.

In conclusion, I would say that Pepto-Mangan (Gude) is a valuable and reliable blood-building remedy, which can be recommended for general use in appropriate cases.—*Medicinisch-Chirurgisches Central-Blatt, Vienna, Austria, January, 1902.*

ERGOAPIOL (SMITH) IN DISEASES OF THE FEMALE.

By CHARLES H. SHEPARD, M.D.
Physician to Lincoln Hospital, Durham, N.C.

A deep and general interest is attached to all knowledge pertaining to the treatment of common diseases of the uterus, to which women are subject, and a vast literature is the outcome of this profound and focussed interest. We live to-day in an age of transition—a period of change. A great many of the former theories in medicine are fast passing away. New medicines are made, achieve a short-lived success, and then pass on to obscurity. This is true, most especially in medicines for gynecological diseases. Of the newer remedies it is hard indeed to get one that may be depended upon for long. They soon lose their reputation and potency, and are relegated to the past.

We know that all diseases of the womb have not the same etiology nor the same pathology, therefore they should not all have the same treatment. Far too often the general practitioner groups all these diseases together as one and gives the routine treatment. It is not enough to give anodyne medicines for dysmenorrhea no more than it is sufficient to treat alike all forms of dysmenorrhea.

The operation of curettement has a most important place in these conditions, but like other remedial agencies it has its limitation. When we curette the uterus we rid it of a pathologically obnoxious lining membrane, and afford a normal membrane the opportunity to be formed.

The healthy woman with normal genitalia menstruates regularly and painlessly once a month from puberty to the "turn" of life, except that this regularity is interrupted by

pregnancy and afterwards by lactation. Any departure from this rule constitutes an abnormality. Amenorrhea is less frequently met with than dysmenorrhea and irregular menstruation. The present age of transition has brought forth what is popularly known as the "new woman," and she has brought with her new ideas and practices which in very many cases retard growth and the natural process necessary for perfect health. For leaving the old landmarks she has to suffer.

The most generally useful medicine in the conditions of amenorrhea, dysmenorrhea, irregular, scanty and fetid menstruation, in my judgment, is a preparation of the Martin H. Smith Company of New York, known as Ergoapiol (Smith). In the female ward of the Lincoln Hospital, Durham, N.C., I have used this medicine very extensively, and it has not only never failed to benefit and cure, but I know no remedy with which I could replace it were I deprived of it. Its efficacy may be tested by any physician who properly tries it. I mention a few cases with short description of each, in which it has given the most signal benefit in my hands.

Ergoapiol (Smith) is put up as a small capsule, and is made up of a special form of apiol which is of the very highest quality. Combined with this are some other most valuable hemagogues, and they all go to make a fine preparation. It seems to be a scientific pharmaceutical preparation, non-toxic, tonic, as well as emenagogue. What I have to say of this preparation is based entirely upon clinical experience, and I feel safe in saying that it will bear a clinical test whenever properly administered.

REPORT OF CASES.

Case 1.—Mrs. F. was admitted to hospital, September 15th, 1901: married: no children, though she had been married four years. Had not menstruated for seven years. Womb had been curetted several times; suffered from leucorrhea; pains in right and left iliac regions continuous. Examination showed a very small os, but generative organs were otherwise found to be normal. Another curettement failed to bring on the menses. I then prescribed Ergoapiol (Smith) to be taken one globule three times a day, and afterwards increase to one globule four times a day. After seven days of this treatment she complained of a general feeling of stiffness in her limbs, gaping, and a feeling of malaise. The following morning she found to her delightful surprise that she was menstruating for the first time in seven years. At that time the flow was somewhat scanty, but the treatment was continued through three periods. Each succeeding period was more nearly normal than the one

that preceded it. Now her functions are regular, and I know no reason why she may not become pregnant.

Case 2.—Mrs. S. complained of a continuous, dull, dragging pain, situated in the region of the iliac fossa of the right side. Menstruation irregular, scanty, fetid. Married six years; had never been pregnant. Excessive leucorrhea, though otherwise she was perfectly normal. Her weight was 140 pounds. Her condition, and the suffering, both physical and mental, which it occasioned her, was rapidly undermining her health. She was becoming emaciated, appetite of no consequence, general weakness. She considered her condition "hopeless." Cardiac weakness, of which she was a victim, contra-indicated curettement, which usually cures "whites" and allows the formation of a healthy lining membrane. Ergoapial (Smith) was prescribed for her, one capsule three times a day. In conjunction with this I gave tonic medicines. After six weeks' use of this remedy, the woman said she was "feeling so good" that she did not need any further treatment. She had increased in weight, and her appetite had become all she could wish. The menstrual flow was increased, and now, five periods having elapsed from the time treatment was instituted, her monthly flow has failed to appear. She does not expect its return for some time—supposing herself pregnant.

Case 3.—Miss S. suffered severe pain each month, beginning a day before the flow came on. The flow was a thick, clotted mass, consisting of membrane and the menstrual blood matted together. She had suffered from puberty, and the suffering became more intense as the years passed on. She was 19 years of age, stout, of healthy parentage. Admitted to Lincoln Hospital, January 15th, 1902. She declined an operation. I afterwards prescribed Ergoapial (Smith) and have continued it for one month. Her next menstruation was free and easy; painless and regular. I doubt not that keeping up this treatment up to another period she will be entirely rid of the hitherto troublesome condition.

Case 4.—Miss W., tubercular history. Menstruation very irregular, sometimes three, sometimes five weeks between periods; very painful; scanty. I prescribed Ergoapial (Smith) one capsule four times a day beginning one week before the menstrual period and continued a week after the period. As a result of this treatment the patient feels a great deal better in her general health; her monthly flow has been rendered painless and increased in quantity. Ergoapial has a tonic action upon the muscular fibers of the womb. Its effect is not transitory but lasting. This superior preparation is decidedly tonic.

Case 5.—Mrs. D., a victim of endometritis. Pain continues

between periods, and is aggravated at periods. Leucorrhœa was very pronounced; pains in the back: "hot flushes," vertigo, headache. Patient would not allow an operation: highly sensitive. Several preparations were tried, but none gave relief until Ergoapiol (Smith) was used. It has entirely relieved the patient, and she is now loudly singing its praises. In this case treatment was kept up for ten weeks.

Ergoapiol has never failed in my hands. It is not possible that it can cure obstructive dysmenorrhœa, but with that exception it is indicated in all the other diseases of the womb where a tonic and sedative action is the requirement.

Case 6.—Mrs. D., widow: aged 33; had three children: youngest ten years of age. She had suffered all her menstrual life severe pains in the pelvis at each period; had to keep in bed a week or more each month; paroxysms of pain were followed by a flow of the "whites;" no anemia: womb found to be flabby and relaxed; pains extended down thighs posteriorly. Had been treated for many years by various physicians of note, but had received only temporary benefit.

Ergoapiol (Smith) was given her, one capsule three times a day, and increased at the time of the flow to four a day. After three months of this treatment her menstrual function became regular, and being entirely well now, she feels that life; after all, is worth living.

I could prolong this list indefinitely with records of cases that have been entirely relieved of these conditions, and I shall be pleased to furnish any information desired as to Ergoapiol (Smith) and its use.

SURGICAL HINTS.

To tap the bladder in very fat men, observe the furrow which runs transversely above the pubic fat, and tap where this line crosses the linea alba.

In severe epistaxis, or after operations in which patients swallow much blood, they are likely to be considerably nauseated. The stomach may be washed out, or else the patient may be given some bicarbonate of soda, or a good dose of pepsin.

In operation upon alcoholic subjects it is often wise to give them a drink of spirits an hour or less before its performance. These people are more restless than others, and often require a greater quantity of the anesthetic to abolish sensibility, but long deprivation of drink, if anything, only tends to intensify these unfavorable tendencies. — *International Journal of Surgery*.

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Original Communications.

VENTRO-FIXATION, ITS VALUE AND RESULTS.*

BY J. ALGERNON TEMPLE, M.D.

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GENTLEMEN,—I promised the President I would open the discussion on "Ventre-Fixation, its Value and Results," but this, of course, does not imply that I have to read a paper on the subject or enter into any description of the operation, for I am quite sure you are all familiar with the method of doing it. The idea is to have a discussion on the subject by those who have performed the operation, and get an expression of opinion as to its utility and after effects. For my own part, I may briefly say I entirely disapprove of abdominal fixation and I never perform it. There may possibly be some cases suitable for this operation but I think they are very few: while on the other hand I think that ventral suspension of the uterus is a very excellent operation for rebellious and obstinate cases of retro-version that all other treatment has failed to cure.

Ventre-fixation, hysterorrhaphy, abdominal fixation and hysteropexy are a few of the names given to this operation. The object of the operation is to replace a retro-deviated uterus which has refused all other methods of treatment and secure it by means of sutures so placed as to unite the anterior uterine wall to the anterior abdominal wall by the formation of a permanent adhesion, thus rendering the uterus a fixed body in its new situation.

Professor Olshansen, of Berlin, reported the first case in October, 1886, and Howard Kelly his first case in November, 1886. These were cases of ventral fixation, since which time the

*Read at meeting of Ontario Medical Association.

operation has undergone many changes and modifications, till now we have a very simple and effective method, thoroughly tested and recognized as one of the useful and scientific operations, in properly selected cases. But it is now uterine suspension and not uterine fixation. There is a wide difference between these two operations.

I am decidedly of opinion that even uterine suspension should only be undertaken in persistent cases of retro-deviations which have refused all other methods of treatment and where the woman's health and personal comfort are seriously interfered with. I don't think sufficient effort is made to cure a retro-deviated uterus nor that sufficient time is given to the treatment. My experience is that there are very few cases of uncomplicated retro-versions or flexions that cannot be cured without any operation.

If after a legitimate trial of treatment, it may be for months, you fail to secure a relief to the symptoms and the woman continues to suffer from bearing down pains in the pelvis, a sensation of weight, constant backache, frequent micturition, inability to walk or work without increasing these symptoms, with an increase of suffering at the monthly period, several reflex nervous symptoms, such as headache, neuralgia, dyspeptic symptoms, then I have no hesitation in saying by all means suspend the uterus. If these symptoms happen in a working woman dependent on her own efforts to earn a living, then perhaps I would advise operation earlier.

If at time of operation the adhesions are found to be very extensive, it is questionable if the operation is advisable. Extensive raw surfaces necessarily are left, exposing the patient subsequently to intestinal adhesions, and if the adnexa are found diseased it would possibly be better to remove diseased and useless organs entirely. In my experience a woman with a uterus permanently fixed to the abdominal wall is an everlasting sufferer from constant pain and discomfort; and if she becomes pregnant is exposed to many dangerous complications. I could quote many authorities to bear me out on this point, but I will content myself with a few quotations from Howard Kelly, viz.:

UTERINE FIXATION DURING PREGNANCY.

1. Marked retraction of the sear due to tugging of the adherent uterus.
2. Constant pain in hypogastrium.
3. With the advance of pregnancy the cervix retracts into the pelvis, and may even become displaced posteriorly, up into the abdominal cavity.

4. Anterior portion of uterine body fails to expand and forms a large fleshy, tumorous mass obstructing the superior strait, while the posterior wall becomes very thin.
5. Abortion or premature labor is of frequent occurrence.

DIFFICULTIES DURING LABOR.

1. Labor has been delayed some weeks beyond term.
2. Labor has become powerless owing to the inability of the thinned out posterior uterine wall to expel the fetus.
3. The labor may be obstructed by the mass of tissue in the anterior uterine wall as by a tumor.
4. The proper expansion of the cervix is interfered with by its abnormal high position in the abdomen.
5. Malpositions are more frequent.

6. The uterus during labor may tear loose from its attachments, with the formation of a large hematoma at point of rupture.

I think I have advanced enough evidence to prove that ventral-fixation, at all events in a woman who has not passed the child-bearing period of her life, and who may become pregnant, is not a desirable operation, nor do I think I am putting it too strongly when I say I do not think it a desirable operation under any circumstance.

In conclusion, I wish to say a few words regarding ventral-suspension which I believe to be a very desirable operation, and one that may safely be done at any period of a woman's life, without exposing her to any of the inconveniences or risks of fixation.

In ventral suspension we aim at suspending the uterus, not fixing it, from the anterior abdominal wall through the medium of two newly formed ligaments, so that the uterus still has free play in a lateral and vertical direction, while at the same time it is unable to retrovert. By the old method of fixation the anterior wall of the uterus after extensive scarification was permanently fixed by broad adhesive surfaces to the abdominal wall and the woman's future comfort greatly interfered with, the action of the bladder much impaired and the dangers of pregnancy considerably increased. The sutures which are now inserted for suspension of the uterus in time draw out a thin muscular fibre from the abdominal muscles and a similar one from the uterine wall, so that eventually the uterus becomes suspended by the formation of two new thin ligaments from 2 to 3 inches long, and the uterus retains its natural mobility, in a lateral or vertical direction, while at the same time it is quite impossible to retrovert it, the distension of the bladder is not interfered with nor is the course of pregnancy.

The presence of these ligaments is easily demonstrated by a bi-manual examination, and their presence has also been proven by a subsequent opening of the abdominal cavity for some other cause. Prof. Penrose reports 239 ventral suspension operations, with the following results: 131 cases relieved of the symptoms for which treatment was sought; 49 improved; 31 not improved; 20 became pregnant and went to full term; 8 miscarried, and of those who did miscarry it would appear that the percentage was no larger than in a similar number of cases of pregnancy where no operation had been performed; and of the 20 cases who became pregnant and went to full term all the children were born alive and the labors were normal.

STRICTURES OF THE ESOPHAGUS.*

By A. B. WELFORD, M.D., Woodstock, Ont.

In this paper I shall confine my remarks more particularly to stricture occurring at the lower end of esophagus or cardia. An average normal esophagus is about 16 inches, which includes the distance from the incisor to the beginning of the esophagus (6 inches); the next (2 inches) is the cervical portion; $6\frac{1}{2}$ inches is the thoracic; and the last ($1\frac{1}{2}$ inches) is the abdominal. Strictures of the esophagus may be (*a*, congenital, (*b*) spasmodic, (*c*) cicatricial—tumors pressing from within; (*d*) carcinomatous—growths pressing into lumen.

(*a*) Congenital stricture we will not enter into.

(*b*) Spasmodic or spastic strictures are always the result of a neurosis, or a reflex, or functional nature. They are distinguished from the firm closure by the attacks being frequently intermittent. They occur in paroxysms: are due to mental disturbances, exhausting sicknesses, neuralgia, gastric cancer, metritis and pregnancy, etc., and are found more frequently in neurotic and hysterical individuals.

The obstructive spasms can be readily, as a rule, overcome by the passage of a large sound, and they disappear readily under chloroform. They may exist for years without injuring the health of the individual.

(*c*) Cicatricial strictures are the usual result of some caustic or corrosive substance, or foreign bodies swallowed either accidentally or intentionally, injuring the mucus membrane. These injuries are most frequently met with in the lower part of the tube, for it is a well-known fact that when substances are swallowed they are hurried down the upper part of the

*Read at meeting of the Ontario Medical Association.

esophagus, and are temporarily arrested, just above the cardia, before they are finally emptied into the stomach, thus giving the caustic substances a longer action upon the tissues, and consequent greater destructive effects.

Syphilitic and tubercular ulceration are uncommon in this situation. The formation of the obstruction is gradual, and the patient may only complain that the food lies heavily upon the stomach: all of the food not having at once passed into the stomach.

Then gradually solid food passes with such an effort that semi-solids are chosen and preferred, and then fluids are resorted to, and even these in diminished quantities. Then the symptom of regurgitation appears: the nourishment being returned unchanged, except for the admixture of mucus or saliva: as solid substances are unable to pass, more tension is put upon the muscular walls, and the repeated efforts to pass on or reject these substances ends in more or less dilatation. This dilatation may be assisted by a previously existing diverticulum, although this is rare in the cardiac end of the esophagus.

The collection of food in the dilated part will often produce conghing, and this effort stimulates regurgitation and vomiting. It is unusual to see blood in the vomited matter.

Now, if this regurgitated or vomited material be examined, it will be found not to contain any products of gastric digestion. The vomited material being generally of a grayish white or yellowish gray color, without any trace of bile whatever. This absence of bile is a very strong diagnostic feature.

In proportion to the increasing stenosis, emaciation will be prominent.

Pain is not a frequent symptom even in carcinomatous stricture, unless the stomach itself be involved. Once having established the fact that a stricture does exist, it is quite as important to establish the nature of the cause.

(d) Carcinomatous.—The new growths which lead to constriction of the cardia, resolve themselves into those which exert pressure from without, and those which are situated in the digestive tract, which grow from the wall into the lumen of the esophagus. Among those which develop from the outside may be mentioned:—

1. Abscesses.

2. Tumors of a malignant or fibrous nature growing in the mediosternum or retroperitoneum.

3. Osseous or periosteal tumors from the vertebral column.

4. Aneurisms of the large blood-vessels.

Constricting neoplasms of the cardia are always carcinomatous, and have a greater tendency to spread upwards in

the esophagus than downwards to the stomach. In considering the nature of a stricture in the cardia the simple cicatricial one may be excluded in the absence of the patient's never having swallowed any corrosive substance, or having inflicted no injury to the tube by a foreign body.

The history of the case will readily exclude the spasmodic variety. A diverticulum is usually situated in the upper third, so that by a process of exclusion a cancerous stricture may be diagnosed even in the absence of a tumor, pain, or emaciation. The emaciation is more rapid in carcinoma than in cicatricial stricture, owing both to the malnutrition and carcinomatous intoxication.

Carcinomatous strictures seldom occur before the age of 30.

The treatment of a simple cicatricial stenosis is by the careful passing of graduated gum elastic sounds or by any kind of sound most preferred, and this may have to be persisted in for years. But if it is impossible to introduce a sound, then a gastrostomy must be done, and the stricture dilated from below, or by persistent efforts from above.

The treatment for a carcinomatous stenosis will necessarily be the same. There is more danger of perforation in this case.

I would strongly advocate the much earlier performance of gastrostomy than is usually done, as you then have your patient in a much better condition physically, and the wound will heal more kindly and be in a more comfortable shape for feeding when the stricture becomes finally closed.

I will recite the following case, which has some interesting yet conflicting points in the usual symptoms of carcinomatous stricture of the esophagus:

Mrs. J. M., aged 49 years; height, 5 feet 7 in.; weight when in good health, 135 lbs. Seven years ago she first noticed a small hard lump in the right breast about the size of a marble, which gradually increased with a great deal of pain for 2 years, when it was removed in the Hamilton Hospital, evidently by the wide method. During the next $3\frac{1}{2}$ years she had good health, with no apparent recurrence; her right arm from the shoulder down to the finger tips is very much swollen and edematous, but gives her no pain and is useful to her. About $1\frac{1}{2}$ years ago she had a very sore throat and bad cough, which persisted for nearly six months, and then she first noticed a slight difficulty in swallowing, which has gradually increased, with occasional regurgitation of food and mucus, and which is generally preceded by a fit of coughing. Examination of the regurgitated matter shows the absence of peptones, acid or bile. There is considerable dyspnea and a peculiar change or softening of the voice. She has never had any pain nor spat up any blood. She has been able to take semi-solid food much longer

than she could fluids, and never had any injury to her throat by the accidental swallowing of any foreign body, acids or alkalies.

Her physical condition, when first seen by me, on March 16, 1902: she was pale and emaciated; weight, 98 lbs. A peculiar voice, similar to that when the recurrent laryngeal nerve is pressed upon. Temperature normal. No evidence of aneurism or any tumor in the cervical region; both pulses equal and normal; unable to swallow the slightest particle of nourishment for the last 2 weeks; a sound cannot be passed.

Laryngoscopic examination of throat—vocal cords normal, a small ulcer size of a split pea at the right hand base of the epiglottis within the larynx, covered with a grayish substance, a wiping from this and some of the expectoration was submitted to Dr. Amyot for bacteriological examination and no tubercle bacilli could be found. On March 24th, 1902, a gastrostomy was performed in the usual way and a retrograde dilatation up to a No. 10 gum elastic bougie—an examination through the wound could not detect any tumor of the cardia. The leakage from the fistula is neutral, no HCl., the No. 10 bougie is now passed once a week without any difficulty and she is able to swallow all kinds of food the same as her husband. She has had no bleeding through the fistula since the 20th of April, her voice has much improved and the ulcer has healed in the larynx. She has gained 10½ pounds since April 20th and drives herself to my office once a week from her home, seven miles in the country. The leakage from the fistula is now strongly acid, as tested with litmus. I have no doubt in my own mind but that this is a case of carcinomatous stricture and all the symptoms indicate it, but how is the return of HCl. to the stomach to be accounted for?

This specimen formerly belonged to a Mr. Thos. Brandow, aged 71, whom I saw in consultation with Dr. Hossack and to whom I am indebted for this specimen, the history of which is: twenty-five years before his death—which took place two years ago—he was eating some bread and butter and plum jam when he was seized with a severe coughing fit which gradually subsided; he frequently had these coughing fits but not severe, when a year before his death he had all the symptoms of esophageal stricture. When I saw him he was unable to swallow anything, a gastrostomy was proposed to him but he declined the pleasure and gradually died of starvation. I have not had the specimen microscopically examined, but it looks very much like an epithelial cancer as the result of the irritation or trauma caused by the lodged plumbit.

CIRRHOSIS OF THE LIVER IN THE YOUNG.*

By J. T. FOTHERINGHAM, M.D., TORONTO.

Last November I was reminded of the saying that if an odd case of accident or disease happens in one's practice one will shortly see two more, by a series of three enlarged livers which came under my attention within about three weeks. Each patient was a female, and their ages were respectively, 29, 6 and 12 years. As in no case was *post mortem* examination available as a means of imparting exactitude to my research, I may state in advance that I do not pretend to any great scientific value for this paper, and do not even claim that each case mentioned is simply one of cirrhosis. The details of the cases in brief are as follows:

Case 1.—Mrs. A., aged 29, seen in consultation last November with Dr. J. C. Mitchell, of Enniskillen.

Family history.—Unimportant.

Personal history.—First pregnancy three years ago, with icterus and albuminuria at time of delivery, but good recovery and no serious illness before or since, till the present.

Present illness.—Delivered at full term six weeks ago. For some weeks before had jaundice, albuminuria, pallor, anemia, marked breathlessness, and much bronchitis, or at any rate over-secretion from the bronchi. By four weeks after labor, which seemed normal and had caused much temporary relief, she began to suffer again as before.

Present condition.—Temperature, 101-2F.: pulse, 100 to 120; respiration, 30 to 40, pale, breathless, orthopneic, syncopeal, jaundiced, but not severely so.

Digestive system.—Tongue clean, blue and cyanotic appetite poor. Diarrhea nearly constant of late. Spleen much enlarged; liver very large, down to level of navel, smooth, hard and painless. Some ascites, and a good deal of tympanites.

Genito-urinary system.—Urine contains albumin and is scanty and ill smelling (full examination not made).

Circulatory system.—Very anemic (blood examination not made). Heart very rapid, second sound relatively accentuated, some irregular duplication at apex, great dilatation and diffusion of impact, evidently myocardial change.

Respiratory system.—Fine râles here and there all over. Has been some consolidation of left base behind, now clearing up. A moderate effusion exists in left pleural cavity. Death occurred about five days after I saw her. The probable sequence of events here was, I think, as follows:

(a) Toxemia during first pregnancy, shown in both albu-

* Read before the Huron Medical Association at Stratford, July 10th, 1902.

minuria and icterus at that time, hemic and reaching both the liver and the kidneys in the blood.*

b) Cirrhosis of the liver, biliary in type, not portal, the organ being now both cirrhotic and "nutmegged" from state of circulation.

(c) Splenic enlargement, due probably both to chronic venous congestion and to "vital reaction" to toxins reaching it by the blood.

(d) Myocardial degeneration, with dilatation, due to chronic toxemia.

(e) Low inflammation of bases of lungs, with edema, and later pleural effusion.

Case 2.—Mrs G's girl, seen in consultation in March, 1900, and again in November, 1901. History of chronic intestinal dyspepsia, with tympanites, etc. Large, well grown, but flabby child, with mild, chronic icterus, for past three months little or no ascites, very protuberant abdomen, capricious appetite, foul, irregular stools, diarrhea and constipation alternating, and the usual train of symptoms seen in chronic intestinal indigestion. Examination showed very large, smooth, hard, painless liver, lower margin down almost to navel, and left almost, if not quite over to left side of body. No heart or other visceral complication. After spending the winter in Bermuda, she is now at home doing very well, playing about all the time, and with health apparently restored. Examination of the liver this week shows it to be much smaller, though still distinctly enlarged, but soft and natural to the touch, and free from tenderness.

Case 3.—H. H., brought to Children's Hospital from country last November, aged 12. A well grown girl, well nourished, had been at school till three weeks before, when the parents began to notice swelling of abdomen. Father said he could feel hard lump in epigastrium a year before. Previous history very indefinite: nothing beyond the ordinary digestive disturbance of childhood—malaria, alcohol and syphilis all definitely excluded.

Present condition.—Abdomen enormously distended with fluid, very breathless, face edematous and typically suffused and congested by obstructed venous return: not able to walk 20 feet, nor to lie down, particularly on left side. Edema of

* This toxemia is familiar to us in the form of scarlatinal nephritis, and in those cases of hepatic cirrhosis which die from sudden so-called "uremic" poisoning instead of the gradual effects of circulatory embarrassment, though one must remember the important point that it is parenchymatous and not mainly interstitial in its effects, as seen in scarlatinal nephritis. I am not, of course, in a position to deny that the whole trouble arose from an undetected or unreported valvular lesion of the heart, perhaps of long standing, with compensation breaking down under pregnancy and parturition.

face, chest and lower limbs, appearance typical of chronic and very advanced valvular disease. No kidney lesion, urine normal; no cardiac lesion, but sounds loud and ringing; no murmurs; pulse regular though small; heart displaced upwards very decidedly. Liver pushed up to nipple line on right side. Tapping of abdomen done November 9th, and 130 ounces fluid removed, clear, greenish-yellow, no fibrin or flakes in it, quite non-inflammatory in character. On the 13th a second tapping withdrew 96 ounces of a similar fluid. This child was taken from the Hospital for Sick Children, and on the advice of an outside man, who is reported to have said that it was peritoneal tuberculosis, was sent in to the General Hospital, where an exploratory incision was made, and the diagnosis of cirrhosis of the liver confirmed. The omentum was anastomosed; and though the fluid at first returned I was informed some weeks after from her home that she was then doing very well, and had very little ascites, having apparently largely recovered her circulatory balance, though no one would, of course, call this a complete cure, for the organic change in the liver has gone beyond full restoration. As some one has said, we might as well say that chronic valvular lesion is cured when ruptured compensation has been temporarily restored by rest and digitalis.

Points of similarity of all these cases are: 1. Age—childhood and early adult life. 2. Sex—all three female, contrary to usual experience, 22 of a series of 26 quoted by Osler from Schachmann being males. 3. Etiology—extreme indefiniteness, also frequently seen in such cases. Alcoholism, syphilis, malaria and chronic lead or other similar intoxication can be reasonably excluded with certainty in each case, as well as valvular lesion, a very common cause of the hepatic enlargement known as mixed "nutmegging" and cirrhosis. I freely admit that in the absence of histological examination an element of uncertainty prevails, not as to the gross anatomy of the organ, but as to exact histological condition. One point in which Case 3 presents a striking difference from the other two, is in the presence of ascites and other evidence of extreme portal obstruction. Ascites is rare in such cases, but of course the rule in ordinary "portal" cirrhosis.

To turn aside for a few moments to an academical discussion of this disease, one need scarcely remind one's self of that most useful modern distinction of cirrhosis of the liver into (*a*) portal cirrhosis, (*b*) biliary cirrhosis, and (*c*) mixed cases. In portal cirrhosis the irritant, usually alcohol, reaches the organ by the vein and sets up the well known changes, development of scar tissue along the larger vessels so as to produce the multilobular or hobnailed type, or around the finer portal

radicles to produce the unilobular type. One is struck by the unsettled state of pathological opinion on this disease. In Allbutt's system, Vol. IV, the article by H. P. Hawkins, of St. Thomas's Hospital, rejects the view that biliary cirrhosis, that is cirrhosis due to mischief *via* the common duct, exists as distinct from portal cirrhosis. It is spoken of as "problematical," and though the problem of biliary cirrhosis is discussed at great length, the writer declines to accept the views of Hanot, Charcot, Hayem, Cornil and others, and claims that though the clinical features are very different from those of multilobular cirrhosis, the "difference depends partly upon the anatomical arrangement of the new fibrous tissue." The statement made in the same article can scarcely be accepted by any possibility, that it is "doubtful whether any cases of unilobular cirrhosis of the liver own any other cause than alcohol, and possibly malaria." It seems to be the case that while most livers cirrhotic by alcohol, and particularly by spirits, are very soon atrophic, some alcoholics, particularly beer drinkers, show a combination of fatty parenchymatous change with fine cirrhosis, the organ being enlarged, which justifies the view that some hypertrophic cirrhoses are alcoholic. Indeed the combination of cirrhosis with fatty degeneration usually results in enlargement. These views, however, do not at all justify a refusal to accept the possibility of the existence of a true biliary cirrhosis, overgrowth of bile canaliculi, particularly in the periphery of the lobule, with accompanying fibrosis and general increase of the organ in size, the irritant being either (a) a nonpyrogenetic ascending cholangitis from the common duct and intestine, or (b) a blood-borne one affecting the canaliculi from above and causing a descending cholangitis. One may easily in this connection establish a very suggestive analogy between the liver and the kidney. In the latter organ it has been long recognized that there may be (a) a parenchymatous inflammation (large white kidney) from blood-borne irritants, *e.g.*, scarlatinal toxins, to which the large "biliary" type of cirrhosis seems to correspond closely in some cases; (b) chronic contracting interstitial vascular change, due to alcohol in many cases, to gout, etc., the exact counterpart of the contracted liver in both etiology and disturbance of function, but differing in this very important point that epithelial degeneration is not so prominent a feature in the liver as in the kidney, and (c) mixed cases of parenchymatous and interstitial inflammation. It is about this latter group of cases in the liver that dispute seems mainly to have persisted.

In the *Encyclop. Med.*, Vol. VI, the article by H. D. Rolleston, of St. George's Hospital, supports in a very convincing manner the view that there are two distinct groups of

cases, (a) portal cirrhosis, commonly multilobular, though sometimes unilobular and fatty, and those often hypertrophic. (b) Biliary, always hypertrophic, and due either to (i) ascending cholangitis, the secondary infection being an essential in the process as well as the obstruction to the free outflow of bile, due in many cases to primary simple gastroduodenitis, or (ii) to descending cholangitis, the process being begun at the upper end of the biliary "tree" in the periphery of the lobule, and consisting mainly in proliferation of the normal bile canaliculi, under the influence of an irritant brought there by the blood. By this infection theory the liver condition is only a local manifestation of a general infection, and arguments in its favor are given by Rolleston *loc. cit.* as follows:

(a) Other irritants, *e.g.*, toluylenediamin produce it experimentally. (b) The frequency of fever. Can this not be due in very many cases to the intestinal intoxication, by ptomaines and leucomains? (c) The splenic enlargement, which sometimes precedes, and is often relatively greater than that of the liver. (d) The leucocytosis, which is not found in portal cirrhosis, as if the system were reacting as it does to other infections, *e.g.*, the pneumococcus, or in appendicitis. (e) Glandular enlargement, not only in the portal fissure but sometimes in more distant parts.

To these arguments one may add the most suggestive work of Adam, of McGill, three or four years ago, in which, while investigating the Pietou cattle disease for the Dominion Government, he isolated and grew a distinct, and constantly occurring organism.

One is tempted to accept the opposite view of an ascending cholangitis, particularly in the case of children with their frequent gastroduodenitis and catarrhal jaundice. There is little doubt in my own mind that both the children I have spoken of began in this way. Gilbert and Fournier regard the process as due to the colon bacillus with an ascending infection. They have found the colon bacillus in blood withdrawn from the liver by puncture during life, and subsequently in the liver and spleen in the same case. Hayem also found the diplococcus pneumoniae in blood aspirated from the spleen during life, in a group of cases closely associated, if not identical, with hypertrophic biliary cirrhosis, in which there were enlargement of spleen, with jaundice and recurring fever. He gave them the name "chronic infectious jaundice." And the analogy between this view and the well known origin of bronchopneumonia from an ascending bronchitis is a particularly tempting one. Of course the chronicity and the absence of suppuration make it necessary to assume that the organism cannot be a pyrogenetic one.

I may conclude my very hurried and imperfect handling of a complicated and undecided subject by reminding ourselves that here, as so constantly elsewhere in medicine, one must be on his guard against attempting to generalize too widely, or to adopt too Procrustean a system of classification, and on the other hand against making too many pigeon-holes with their contained theories. The truth, probably here as on other occasions, lies in the midst, and the error of the opposing champions lies not so much in either theory as in their notion that their own theory is always right, and the other man's always wrong.

THE DIAGNOSIS OF STONE IN THE BLADDER.

BY A. GROVES, M.D., FERGUS.

The diagnosis of stone in the bladder is by no means theoretically difficult but in actual practice the existence of a stone is often overlooked even when its presence is suspected and search made for it. There came recently under observation a patient with symptoms of stone in the bladder but nothing could be found by sounding, although this had been done on two occasions by one of the oldest surgeons in Canada, who gave a positive opinion that there was none present, but the symptoms came from a large and sensitive prostate. Shortly after he came under my care, and by using Bigelow's evacuator the click of a stone against the tube was quite distinct, and on operating its diameter was found to be slightly over an inch. The reason it was missed by the sound was because it lay deep down behind the greatly enlarged prostate so that the sound passed over it. With the evacuator the outward rush of water drew the stone against the tube with a distinct click. A second case was presented, in which the most careful sounding failed to find a stone, but with the evacuator not only was it found but being of small size it came away in the eye of the tube. Given then the ordinary symptoms of stone and if the sound does not reveal it, I make it an invariable rule to use the evacuator, and if with this no stone is found the evidence is pretty conclusive that none exists unless indeed it be encysted, and in my experience this is an exceedingly rare condition. In children the large tube cannot be used nor is there indeed great need of the evacuator with them for there is no prostatic hypertrophy and the contractile bladder will usually bring the stone at once in contact with an ordinary sound.

Selected Articles.

MY EXPERIENCES IN WAR - A CONTRAST, 1885 1900.*

By LIEUT.-COL. G. STERLING RYERSON, M.D., C.A.M.S., TORONTO, ONT.
Knight of the Order of St. John of Jerusalem in England.

I wish to say how much I appreciate the honor done me by your association in inviting me to be present and to take part in this most interesting meeting. I do not know of an occasion when medical officers whose experience covers so long a period of time from 1861 to 1902, and so wide a sphere of action, the Philippines, South Africa, Cuba and the war of the Rebellion, have been gathered together to compare notes and to deduce from the sum of their experiences something which may be for the public benefit. I am not one of those who believe that the time is at hand when there shall be no more war, and that the best efforts of humanity will be devoted to the arts of peace. I am rather of the opinion of my late friend Surgeon General Hamilton, who thought that so long as man had a *cerebellum* he would fight.

Wars are more frequent and more bloody at the end of the 19th than in the 1st century. Education and religion have not eradicated nor even lessened man's love of war. Indeed, the conditions of the every-day struggle for existence, is of the nature of war. Thomas Jefferson said that the world needs a little blood letting every twenty years, and history shows that there has been a war of more or less magnitude at these intervals of time.

To the medical profession falls the honor of mitigating the horrors of war and of minimising the ills and suffering of those who fight for their country. Our work of mercy knows neither race, creed nor color. A broad humanity covers them all.

I have been asked to say something about the medical side of the war in South Africa, but I cannot do so to my own satisfaction without relating briefly some of my experiences in the North-west rebellion in Canada in 1885, especially as the two campaigns present many interesting points of contrast, and it will add another campaign to the records of to-day's discussions.

* Read at the 27th annual meeting of the Alumni Association, Buffalo University Medical College, May 2nd, 1902.

On the night of March 27th, 1885, I was roused from a comfortable slumber by the ringing of my telephone. Imagine my surprise when the commanding officer of my regiment ordered me to parade at 8 a.m. next day with my ambulance corps, prepared to leave for the North-west, where a rebellion of half-breeds and Indians had broken out. The rest of the night was spent in preparation and in hunting up my men. Our departure was postponed two days to enable arrangements for transport, and the like, to be made. On the morning of the 30th we left Toronto for the front. On April 1st we reached Ricotasing, the then end of the Canadian Pacific Railway's tracks, on the north shore of Lake Huron. A long gap of forty-two miles had now to be crossed in open sleighs during the night with a temperature of twenty degrees below zero. The snow was from four to five feet deep, the track through the forest narrow, and any deviation from the beaten path meant an upset in the dark. After an all night drive we arrived nearly perished with cold at Camp Desolation. We camped in the snow at this place until April 3rd, without tents or cover save our blankets. One man went stark mad, removed all his clothing, and would have leaped into the fire had he not been prevented. On this date we embarked in open flat cars running on rails laid on the snow, which gave a serpentine movement to the train.

We ran 150 miles in this way, arriving at Port Munio late in the evening. On Easter Sunday, April 5th, we marched twenty miles across the ice to McKellar's bay, then again took "palace" flat cars for twelve miles to Jack Fish Bay, where the night was passed; next day we marched twenty-two miles to Winston, through snow and slush, then more "palace" cars to Nepigon, reaching there at 10 p.m. There still intervened fourteen miles between the ends of the track. It was intensely dark, cold and raining. All around was the gloomy primeval forest: between us and comfort lay a stretch of ice covered to the depth of a foot or more with slush and water. Plunging, struggling along arm in arm, the regiment advanced. Hour after hour the weary struggle proceeded and day was breaking when the head of the column debouched on terra firma again. Exhausted, the men threw themselves on the seats of cars and fell asleep instantly. The details of this march have never been published fully until now, and I think you will agree with me that it was a wonderful performance, especially when it is considered that the men were fresh from the counting house and shop and factory, without any preliminary training for the field.

You will ask what were the physical effects of such a trial of endurance? They were less serious than you might expect.

Three men broke down by the revival of old rheumatic affections, one man lost his toes with frost-bite, one became acutely insane, but eventually recovered, one had orchitis secondary to gonorrhea, one accidental fracture of the ulna, one accidental gunshot wound of the thigh, a dozen or more snow blind from the terrible glare on the march across the ice in daylight. A small casualty bill considering the circumstances. The gunshot wound was interesting. A correspondent was showing his self-cocking revolver to an officer when it went off. The ball entered the thigh close to the outer side of the femoral artery, ran upward toward the abdomen for about five inches, when it abruptly turned backward and was lost in the loose tissue at the back of the thigh, where it still lies. I ascribe our successful march partly to the food, which consisted of fat pork, bread, butter and biscuits, enabling the men to withstand the cold. No rum ration was issued. Alcohol means death to men benumbed with cold.

My experience leads me to believe that total abstinence in active service under hardship is a factor for good,—in very hot and very cold climates at any rate. We traveled by train to Qu'Appelle station, 2,150 miles from Toronto, where our march of 250 miles across the prairie began. When the alkali plains were reached the men, who could not be prevented from drinking the water, suffered severely from diarrhea, which was controlled with difficulty.

On April 24th was fought the action at Fish Creek, my first experience of Indian fighting. The half-breeds and Indians were driven off with a loss on our side of eight killed and forty wounded. That night it rained, snowed and froze, so that the outposts and sentries had a hard time of it, though strange to say very few came into hospital as a result. My North-west and South African experiences lead me to believe that Canadians are as hardy as army mules, and that they can kick quite as hard on occasions. The engagement at Batoche took place from May 9th to 12th, at which our loss was eight killed and forty-six wounded. This brings me to a consideration of the wounds inflicted.

The weapons used by the enemy were Winchesters. Sniders and smooth bore guns with a few Sharpe rifles. The Winchester produces a small wound of entrance and a huge wound of exit. The Snider, a large entrance and a huge exit. When bone was hit it usually splintered and fractured in all directions; an exception was the case of a man who was shot through the condyles of the femur at short range. A clean hole was bored without apparent involvement of the joint or shaft of the bone. He made a good recovery. Where joints were entered there was extensive destruction of parts necessitating resection or amputation.

Joints into which fractures entered became permanently ankylosed. I observed that even slight wounds were slow of healing. A tough scar formed which separated very slowly—a great contrast to the Mauser wounds. Of pyemia there was only one case, that of a man who refused to have his leg amputated for a penetrating wound of the knee-joint. The primary dressings were crude, the first aid packet not being in use at that time. Multiple wounds were unknown owing to the slow firing of those days compared with the present. Wounds of the brain were all fatal. One man carried a round two ounce ball in his head for a week when he suddenly died, probably from secondary hemorrhage. All who were shot through the abdomen died—contrast the penetrating wounds of this region by the Mauser bullet—as did also those suffering from penetrating wounds of the chest. Slugs and round balls bruise and lacerate, but if not at very close range run around bone.

A curious wound is produced by two round balls flattened on one side; there is one wound of entrance and two of exit, often very remote one from the other, so one is puzzled to know where is the other wound of entrance. Secondary hemorrhage is common, owing to the laceration and bruising of vessels which do not give way at once.

To continue my narrative, we advanced by boat or by trail until we reached Fort Pitt, whence expeditions were sent out in chase of Big Bear. With his capture ended this trying little war, fought entirely by Canadian volunteer soldiers. It will give some idea of the vastness of that northern land when I say that when we turned toward home we had 3,500 miles to travel, and that we were ten days coming down the Saskatchewan river by boat, traveling twenty hours a day, for there is little night in those northern latitudes in summer.

SOUTH AFRICA.

I come now to the second part of this paper, my experiences in South Africa. On the 21st of January, 1900, I embarked for South Africa, on the troop ship *Laurentian*, with "D" and "E" Batteries, Royal Canadian Artillery, and on the 29th day from sailing landed at Cape Town.

We landed in a cape "southeaster"; fine, sharp dust was blowing in all directions. It was intensely hot, temperature, 105° in the shade. Along the docks lay transports three deep. On shore, negroes, malays, Chinamen, Colonials, English Tommies and Highlanders jostled and swore in their respective tongues. Horses, mules, oxen, steam traction engines added to the noise and confusion. Mountains of food and war-like stores encumbered the dock. Above, the sweet blue sky of

South Africa, in the distance, the towering heights of Table Mountain with its table cloth of cloud. What a contrast to the silence, the gloom of the forest, and the bitter cold of the north shore of my former experience!

Three days later I left for the front in a comfortable saloon carriage,—another contrast. How curious a land is South Africa! A land so often described, but yet indescribable. A vast area of plain studded with natural fortresses, called kopjies; traversed by great chains of mountains and wide rivers, which to-day are dry and to-morrow are rushing torrents, which none may cross, a land without herbage or trees, yet of a fertile soil, needing only water to render it most prolific of vegetation, as may be seen about Cape Town and in southern Cape Colony. Through the vast area meanders a little narrow gauge railway, so narrow that horses cannot stand athwart the little cattle tracks, but must stand sideways or with twisted necks and endure the torment of a long confinement and the want of water and proper sidings for disembarking them. Is it any wonder that they suffered and died? The road runs slowly upward for a 1,000 miles until a level of 6,500 feet above the sea is reached. Great ravines and dry water courses intersect the country, which must be spanned with bridges, and these were blown up by the enemy as they retired before our forces. On this toy railway all supplies of food, munitions of war, men, guns, horses, mules, forage, hospital equipment had to be carried for the army. The task was not an easy one.

After two days and nights of travel, I arrived at Orange River, then the immediate base of supplies for Lord Roberts's army. A few thousand men guarded the great stores of food and warlike supplies, but a large portion of the camp area was covered by a general hospital of 500 beds, under the command of Lieut.-Col. Battersby, R.A.M.C. The patients were most comfortably disposed in galvanized iron huts, ingeniously constructed so as to be easily unscrewed and removed. Comfortable beds and bedding were provided, a fair number of female nurses were on duty and the much abused hospital orderly was much in evidence. The experience of this war has confirmed the experience of private life,—that men do not make good nurses. They have not the ready sympathy nor patient unselfish devotion to duty that women possess, and I believe that in the future the number of army nurses will be largely increased and men retained for the heavier work of lifting patients, and the like. The pay of the army nurse should be increased in the British service,—it is too ridiculously small. In Canada a nurse ranks as a lieutenant and has corresponding pay and authority over the men employed in the wards.

A few days later I pushed on to Modder River of sad

memory, a shallow trench of muddy water bordered with bushes, a river which was a little later to play so large a rôle in the production of enteric fever. To the south lay a plain as level as a billiard table with no more shelter for marksman than was afforded by a few crumbling ant heaps. Behind the river were koppies of considerable height. A couple of miles away to the left arose the belting crags of Magersfontein. Here I first saw Mr. Johnnie Boer, as a prisoner of war. Tall, swarthy, rugged, unkempt, he is a typical frontiersman. I have seen many of his kind in the great West. I pushed on to Kimberley, where I arrived a week after the relief of the siege. It was surprising to notice how little damage had been done to the town by the bombardment. For weeks 100 pound shells fell in the place at regular intervals all day, yet little damage was done. Every one I met had hairbreadth escapes to relate and pieces of shell to show, which might have killed them but did not. Food was scarce and the principal item of diet was soup of unknown composition. Of wheaten bread there was none, but a heavy black kind, made of rye flour and bran was abundant.

There were comparatively few sick in the town, but soon the sick and wounded began to arrive in large numbers from Paardeberg, whence 1,000 came in one day. Under this pressure the drill hall, Masonic Temple, public schools and other buildings were converted into hospitals, and every effort was made to meet the requirements of the situation. The medical staff worked night and day, and as at Bloemfontein a few weeks later, did all that men could do, and, as usual with our profession, got little thanks for it.

The cause of the epidemic is to be found in the consumption of the Modder River water, there being no other to be had, fouled by the enemy, imprisoned at Paardeberg drift by Lord Roberts's army, and filled with the carasses of dead men and animals. This led to the great epidemic at Bloemfontein, a month later. Owing to the pressure on the narrow gauge railway, of which I have already spoken, it was impossible to get a full equipment of hospital supplies either to Kimberley or Bloemfontein.

I had now the opportunity of studying the wounds inflicted by the Mauser bullet, the Lee-Metford, and artillery fire. I cannot give you the latest statistics of the percentages of death from wounds, but it is very small as compared with former wars. Up to the end of 1900, 12,637 officers and men had been wounded, of these only 732 had died. Men shot through the chest had been on duty again in four weeks, men shot through the abdomen were at work in five weeks or less, in six weeks men shot through the knee joint were able to walk about without

assistance. Nothing like it had ever been seen in war before. I attribute these results to the aseptic character of the bullet, its high velocity, to the prompt application of the first aid dressing, and to the eminently efficient treatment which the wounded received at the hands of the medical officers. The Mauser bullet has justly been described as a merciful one. Its action, however, upon human tissues, depends upon the range at which it is fired. It has been noticed that when it is fired at short ranges, within 200 yards, it has an explosive action. The nickel case seems to expand and become detached, causing a severe lacerated and contused wound, which heals but slowly. If it strikes at this range it crushes and destroys it. At longer ranges it makes a clean drill hole in bone, and if it strikes soft parts only, a very small wound is made, there being little difference between the wound of entry and that of exit, with but little bleeding, unless a large vessel is injured.

In the case of the soft nosed or dum-dum bullet the injury is severe, the wound of entry is small, but that of exit is very large; great masses of tissue are torn off with much contusion. When it strikes bone the bullet mushrooms and pulverizes and disintegrates it. If the range is very long, 2,000 feet or more, the soft nose bullet mushrooms and causes an extensive wound notwithstanding the range. It has been alleged that explosive bullets were used by the Boers. I have never seen a case which would justify this statement, nor have I ever seen an explosive bullet, but I have seen Mauser cartridges, which were split at regular intervals, evidently in process of manufacture, and I have seen them with the tips filed off.

As to the so-called poison bullets they were simply green with verdigris, the action of the grease in which they are usually dipped to preserve them from damp. This would rub off in the barrel when fired. Besides Mausers, the Boers used thousands of Martini-Henry rifles, which, as you know, throws a heavy chronicle ball similar to the Snider. The wound produced is extensive. You will recollect my statements relative to the Snider.

I had the opportunity at Kimberley, Bloemfontein and elsewhere of examining considerable numbers of Boer wounded and of observing the action of the Lee-Metford bullet. It inflicts a wound very similar in character to that of the Mauser, though the bullet is somewhat heavier and larger. The effect of shellfire is interesting. To begin with the smallest, the "pom-pom." I have known a shell of this class to go right through a man's face from front to rear, leaving a large hole, without exploding. Generally when they strike bone they blow a man all to pieces. They very seldom hit directly, but a man may be filled with small fragments. The noise they make in

exploding is terrifying to the most hardened soldier. Common shell fly into a number of fragments which tear and lacerate frightfully, generally necessitating amputation. Shrapnel shell contain 100 round bullets, which spread out fan-shape when the projectile bursts, and are usually deadly when they strike, but I once saw a Boer shot through the stomach from side to side by one of these missiles without seeming to be much inconvenienced by it. Lyddite has not been found as effective in land fighting as was expected. If the shells fall on soft ground they do not explode, when they hit a rock the concussion and explosion is terrific and destroys everything within reach. The fumes cause severe headache, which the Boers say is counteracted by a few drops of vinegar.

Compared with my experience in the North-west campaign Mauser wounds are innocuous. For instance, I have known a man to be shot through the knee-joint and walk in four weeks. He rejoined his regiment and in the next action was shot through the same joint again, with the same result. Penetrating wounds of the chest, unless they opened a large vessel, generally were followed by recovery. The experience of penetrating wounds of the abdomen is that they are immediately fatal if a large vessel is wounded, but wounds of the viscera are almost harmless. They are best left alone as resections have not been followed by good results. I have observed that perforations of the stomach heal readily if the viscus happens to be empty at the time, and the soldier refrains from drinking water. After two or three months discomfort is often complained of, caused possibly by adhesions which have formed. It will be interesting to learn the ultimate result of these wounds. A case of perforating wound of the liver, which came under my notice had rather hard luck, the patient was brought about forty miles in an ambulance, and when seen was in a state of collapse. He recovered from his wound and was taken down with enteric fever: from this also he recovered, when he was attacked with dysentery from which he succumbed.

Wounds of the brain and its membranes are, of course, generally fatal, but I saw one recovery from very extensive destruction of the calvarium with contusion of the brain, followed by sloughing. He developed epileptic symptoms. I have heard of lodged Mauser bullets in the brain with recovery, but I have not seen a case. I have, however, seen an extensive laceration of the frontal lobe with loss of the eye make a good recovery, and I have seen both eyes shot out by a bullet passing transversely behind, and one in which the optic nerves were divided without much injury to the eyeballs.

I have thus far related some of my surgical experiences which form the dramatic side of war. Let me now say a few

words about the medical aspect, which after all is the more important, for statistics prove that in war while 5 per cent. die from wounds or are killed forthwith, 15 per cent. die of disease, and the South African war is no exception to the rule.

Enteric or typhoid fever is the great scourge of armies in temperate climates to which in hot ones dysentery and cholera are added. I heard of no case of cholera in South Africa, but in East Indian campaigns it is a prominent feature. It is a sort of "bull" to say that prevention is the great remedy, yet it is so. The sanitation of armies leaves much to be desired. Every army should have a chief sanitary officer with a large staff under him who should have full power to act peremptorily. It is generally a quartermaster's work, a layman who knows nothing or next to nothing of his duties, or does not attend to them at all and men die like flies. Contaminated water was largely responsible for the epidemics in South Africa, but a large factor was the exposure of food for the troops to the action of myriads of flies which probably came straight from a feast on the saliva of enterics. The latrines were open and alive with flies. Urine passed on the sand dried and was blown hither and thither. The same can be said of solid excreta. Rigid sanitary arrangements would save thousands of lives in war as in peace.

In conclusion, allow me to say a few words about the use and abuse of the Red Cross. Under present conditions with long range arms of precision, the arm band worn by the individual is useless. It cannot be seen. At long range ambulances with their white covers cannot be distinguished from transport or ammunition wagons. The cross on the white field is so small it cannot be discerned. The Boers made crosses the whole size of the wagon which was better. Colonel Neilson, D.G.M.S., Canadian Army, makes a suggestion which I think is a good one—namely that all connected with the medical service on the field of battle should wear red and that the tilts of the ambulance wagons should be painted red. All nations now have a field service dress according to the climate in which war is being carried on. The British red coat and the American blue will never be seen again on active service. Is it not a good idea to make the life-saving service as conspicuous as possible and thus avoid the regrettable "Red Cross incidents" which are a constant source of contention?

I cannot too warmly state my appreciation of the honor you have done me in asking me to be present to-day, and I wish the University of Buffalo God speed on her mission,—eulightenment and progress.—*Buffalo Medical Journal*.

60 College Street.

DILATATION OF THE STOMACH.

By T. CLIFFORD ALLBUTT, M.D., F.R.C.P., F.R.S.,

Regius Professor of Physic in the University of Cambridge, Physician to Addenbrooke's Hospital, etc.

In opening a discussion on the subject at the Manchester meeting of the British Medical Association, Dr. Allbutt confined his remarks chiefly to the atonic or non-obstructive dilatations of the stomach, as the obstructive dilatations were, comparatively speaking well understood. Atony and atonic dilatation had not received the attention they deserved, atonic dilatation, indeed, being neglected by some physicians, and by a few even denied. Acute dilatation of the stomach he was disposed to attribute to compression of the gut by the distended viscus itself about the junction of the duodenum and jejunum. "The stomach," he said, "is supported more firmly at the cardiac than at the pyloric end; and in any case its mean position is more vertical than is generally supposed, especially when empty. In estimating atonic dilatation, especially in its lesser degrees, the area of the cardiac moiety is therefore to be carefully observed. The stomach may drop as a whole into the mid-abdomen or hypogastrium, and this independently of more general enteroptosis. Gastropptosis is not necessarily attended with dilatation. In this case the stomach assumes a wallet shape, the cardiac and pyloric orifices approaching each other; or if the pyloric end slip more than the cardiac the position of the organ is more vertical and to the left. In this latter case the more muscular pyloric moiety is apt to become dilated by the gravitation of retained contents. The relation of gastritis to dilatation of the stomach is little understood. It would seem that excess of hydrochloric acid is not necessarily, or perhaps usually, in its earlier stages a consequence of gastritis; it may rather be the cause of it. During life the presence or extent of gastritis is often assumed on very slender grounds, and even our *post mortem* knowledge of it leaves much to be desired. Relaxation of the stomach, due primarily to muscular failure, and therefore appearing first in the pouch and fundus, may depend upon toxic causes or mere atony. Such gastric distension, advancing to dilatation, not uncommonly retards convalescence from such diseases as typhoid fever and rheumatic fever. When the condition follows slow digestion with fermentation, anemia, or mere inanition, the muscular failure is primary. That spasm of the pylorus may cause dilatation of the stomach, as, for example, in ulcer, hyperchlorhydria, or lumpy contents of the stomach, seems not improbable. Such morbid action is consistent with what we know of other

sphincters; but atonic dilatations rarely seem big enough to be due to a permanent spasmodic contraction of the pylorus; nor is the muscular coat, as we should expect, hypertrophied. In atonic dilatation peristalsis does not become visible. That the nervous system may be concerned in paresis of the stomach seems likely enough; not only that continuously depressing causes may act in this way, but that sudden and grave mental shock may be quickly followed by considerable atonic dilatation of the organ. The effect of alcohol, in so far as it may be a cause of dilatation, may act directly as a poison to the muscular fibre or indirectly by extension of inflammation outwards. Atonic dilatation of the stomach is no rare consequence of exhaustion by excessive athletic exertion or mental stress, especially in young people of delicate constitution. Dilatation of the stomach is far from being rare in little children and infants; in them it often comes on acutely, but if the condition be understood it is readily relieved by emetic or the tube. The symptoms of atonic dilatation, to an observer not forewarned, are often indefinite, if not misleading. There may be little or no loss of appetite or dyspepsia; in an early stage of the disorder food often relieves a sense of sinking. Vertigo, sleeplessness, heaviness, lassitude and fatigue, and mental depression may divert attention to the nervous system. Flatulence, indeed, is rarely absent, but the tongue may be clean, vomiting slight or absent, the bowels constipated or the stools occasionally henteric. The heart is apt to flutter or to intermit, and the abdominal aorta to throb. In extremer cases the pulse falls in volume and pressure, the hands become chilly, the nails livid, and the face thin, drawn and sallow. By physical signs we may determine the size and position of the stomach. In thin persons gastropotosis is not difficult to ascertain (in well-nourished persons it never seems to occur), and it is for the most part curable by rest, massage and better nutrition. When, as is usual, the dilated stomach occupies (approximately) its normal position detection of the disorder by physical signs will, generally speaking, be easy. Under ordinary circumstances peristalsis is never visible, as in obstructive dilatation, and the signs of distension are chiefly notable to the left of the middle line and under the lower ribs; the ballooned stomach is apt to push up the diaphragm and to enroach upon the thorax. The area of resonance may rise to the fifth or fourth rib and may extend to the posterior axillary line. Such a stomach often accompanies diseases of the heart and plays a large part in the patient's distress. Physical examination must be made at various periods of digestion and when the stomach ought to be empty. In health the stomach after a meal should contract upon its contents, when an area of dulness rather

than of resonance will become apparent. Even in acute indigestion there is a considerable grip of these contents, a grip often attended with stomach-ache, but in atony, with or without static dilatation, an area of resonance at the cardiac end will be found almost immediately after a meal; even four or five hours after a meal the vault remains high and, behaving capriciously under gaseous influences, at no time does it contract in any regular periods. Thus the pyloric moiety, in its turn unable to withstand the gravitation of its contents, increases from its comparatively small transverse diameter until the stomach as a whole may assume a uniform, thick, sausage shape, the upper outline of which may include the nipple and the lower the navel. Strangulation by sharp flexure of the pyloro-duodenal portion may occur in particular cases, but such cases are not so common as we suppose. Dropped kidney is often rather in association with atonic dilatation or gastropotosis than a cause of them, though Sir William Bennett and Mr. Bidwell have incidentally relieved dilatation by fixation of a right kidney. Dilated colon may be mistaken for a dilated stomach, and in rare cases the error may be unavoidable: but in the vast majority of instances by discriminating percussion, even without intubation, these two organs may be distinguished. The stomach may no doubt be wholly concealed by the colon, but ordinarily some narrow area of stomach resonance can be obtained, when a difference of percussion-note, either in pitch or clang, can be made out. In difficult cases syphonage or insufflation may help us: Von Ziemssen recommended in such cases alternate inflation of colon and stomach. The tuning-fork, ausculto-percussion, and coin-tapping, in my experience, add little or nothing to what careful percussion can reveal. In a healthy stomach no squelchy sounds should be obtainable: they are usually obtainable in atonic dilatation, but rarely amount to the succession splash of obstructive dilatation. If before breakfast squelching can be obtained after the drinking of a tumbler or two of water we have to deal with a flabby and extended stomach. The use of the tube is of cardinal importance for diagnosis if not for treatment, but among private patients in England this method is resented, and makes but little way. The normal fasting stomach contains at least from 20 to 30 cubic centimetres of residual fluid, and may hold even 100, but quantities above 100 cubic centimetres are morbid. In the normal state this residuum should not contain any particles recognizable as remnants of food, seeds, grit, or fibre in vomit or stool should be carefully noted, and the date when they were swallowed ascertained. The larger the residuum and the more obvious the relies of food the worse the case. A considerable admixture of mucus

may indicate the presence of gastritis. In atonic dilatation sarcine and torule are not usually found, lactic acid but rarely and in small quantity. The quantity of water accepted by the stomach gives us little information; individual tolerance is very variable, but in atonic dilatation the return of it is very feeble, or perhaps is obtained only by expression or syphonage. Illumination of the stomach from within is of little service. From radiography we may hope for some more information. Chemical tests for the delay of ingesta, such as salol or potassium iodide, may corroborate but cannot dictate a diagnosis. The treatment of atonic dilatation must largely depend upon the causation of the individual cases; particular symptoms will often indicate the means of their own palliation. Vertigo, often very severe, and lassitude after meals often depend upon distension of the stomach, and may be quickly relieved by careful regulation of diet and restriction of fluid at meals to the lowest quantity. In sleepless cases, besides these measures, hydrotherapy expertly carried out is often the more useful, as it takes the patient away from work and care into a bracing climate. In heart disease, after much disappointment in the use of specific remedies, the cure or relief of an atonic dilatation of the stomach may be attended with remarkably good effects. Such patients, under the guise of a light diet, will consume quantities of farinaceous puddings, often well sugared, which disengage gases readily. Thirty years ago I traced a state of anemia and debility apt to appear in colliers and others engaged in similar work to dilatation of the stomach, a dilatation due to want of home meals and to the consumption of large quantities of liquid with heavy food rich in carbohydrates. Mastication must be carefully provided for and papain I have found to be a very useful aid in digestion. The abuse of corsets and belts must not be overlooked. In these cases rest not only after, but also before, meals is of importance. In some emaciated persons the full Weir-Mitchell system may be necessary, especially in gastropotosis; in all a long rest and change of air are of the first importance, nor should such persons on returning to their ordinary occupations expose themselves again to excessive stresses and other causes of exhaustion."—*Medical Press and Circular*.

Progress of Medical Science.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES W. F. ROSS, ALBERT A. MACDONALD
AND K. McILWRAITH.

Cesarean Section in Placenta Previa.

Schauta questions the value of Cesarean section in this condition and says that for many years he has used the method of bimannal version, followed by the attachment of a weight of about three pounds to the fetal leg which is brought down through the vagina. The expulsion of the fetus, assisted somewhat by the continued traction exerted by the weight, is left to the natural sources until the umbilicus emerges from the vulva. From this point the case is managed in accordance with the usual method of dealing with breech presentations. A compilation of his cases during the past ten years shows a total of 234, of which 16 ended fatally. In some of these cases placenta previa could hardly be credited with the mortality. Even allowing this, however, the percentage, 6.8, is not a high mortality, especially in view of the condition in which the patients are brought to the hospital. The advocacy of Cesarean section in all cases, which necessarily includes all cases where the simplest opening of the amniotic sac suffices to stop the hemorrhage, hardly deserves serious consideration. He, therefore, limits his remarks to severe cases of central or total placenta previa. To replace version by Cesarean section in those cases would only add dangers to those already existing. The operation cannot be at once performed even in well-equipped hospitals, while version is always available. Deep narcosis is necessary and there must be a certain amount of blood lost, for often copious hemorrhage cannot be avoided. The placenta must be peeled off after removal of the fetus with the danger of uterine atony. He does not perform conservative Cesarean section in cases that were handled before entrance by untrustworthy people, provided the indication for operation is not absolute. Very few cases brought to the hospital conform to this indispensable requirement. The question whether the section promises to reduce maternal mortality in these cases, he thinks must be answered in the negative. As regards the chances of the fetus, he believes that they would be better if Cesarean section could be performed immediately on the appearance of the first hemorrhage, but if we look over the reports of

cases we find only a small number of these children are fully developed. In his 234 children, only 92 were matured and the mortality of premature children is much more in these cases because they suffer from asphyxia due to the partial separation of the placenta from the uterus, and, therefore, he holds that we would not obtain better results as regards fetal mortality by operation.—*Jour. A.M.A.*

Suspension of the Uterus.

Dr. Hunter Robb, Cleveland, Ohio, in speaking of the advantages, disadvantages and results of suspension of the uterus, insisted that suspension and fixation are not interchangeable terms, the latter procedure being always undesirable. Before we are able to speak with certainty as to the results we must have more accurate data, which can only be obtained by a more rigid classification and a subsequent analysis of sufficiently larger series of, 1, uncomplicated cases of malposition; 2, those cases of malposition in which other pathologic conditions are present, but in which the malposition is the indication for operation; 3, those cases in which the suspension is only a supplementary operation.

Robb believes that in suspension we have a method of permanently relieving a large percentage of patients suffering from obstinate retroflexion. Difficulties in future pregnancies are mainly the result of fixation operations and not of suspension. Hernias, adhesions and localized or general sepsis are due to faulty technic and should not occur.—*Jour. A.M.A.*

Lung Embolism in Placenta Previa.

Voigt gives the history of a case of placenta previa in which, after the successful delivery by version of a living child with the mother in apparently good condition, when all danger seemed past, there was a sudden change characterized by excessive pallor, difficult breathing and loss of pulse. The absence of hemorrhage, the impeded respiration and other symptoms all indicated embolism in the lungs. By means of heart massage, subcutaneous injection of stimulants and saline infusions and external applications of heat, heart action revived and the patient eventually recovered. For the last five weeks before delivery there had been almost daily bleeding, so there were present all the conditions favorable to the formation of a thrombus. In the treatment of embolism the most important point is to strengthen the heart action by overcoming all opposing circumstances and rendering respiration as easy as possible. Secondly, to avoid any embolic relapse by absolute rest in bed, aided by small doses of morphine.—*Amer. Med.*

Vaginal Hysterectomy for Cancer with Four Months Pregnancy.

Baldwin reports the case of a woman of 28, with four children, suffering from too frequent and profuse menstruation. Examination showed a cauliflower growth springing from the posterior lip of the os and filling the entire vaginal vault. In the operation the cauliflower tissue was first broken off with the fingers and then the cervix was amputated. To prevent infection the vagina was re-sterilized, then the uterus opened and emptied of a four months' fetus and placenta, after which the uterus was easily removed through the vagina. Microscopic examination confirmed the diagnosis of cancer, but it is one of the few cases in which there has been no recurrence within three years after hysterectomy for cancer of the cervix. Baldwin considers it better to remove growth, fetus and uterus all in one operation, as in this case.—*Amer. Med.*

Deciduoma Malignum.

The histology, as well as pathology of this disease is still a mooted question, the growth being either a sarcoma or carcinoma or a combination of both, and being derived either from maternal or fetal structures or both. In view of existing knowledge, Ladinski thinks the name deciduoma malignum is the most appropriate. Clinically, however, he says the disease presents a clear and distinct picture, and its diagnosis, which is most important, should not be difficult. Pregnancy is an absolute concomitant or precursory condition of deciduoma malignum, and the chief clinical features are: (1) History of recent parturition or abortion, especially if a hydatid mole has been discharged or placenta retained; (2) profuse hemorrhage occurring at irregular intervals, without apparent cause, and not amenable to the ordinary means of treatment, and which recur in spite of repeated curettages—the presence of a constant sanguineous discharge during the intervals of hemorrhage; (3) a persistently large and hyperplastic uterus and cervix, with a patulous os; (4) pain in the pelvis; (5) anemia, rapid loss of flesh and strength, and cachexia; (6) characteristic nodule in interior of uterus in the early stage. This nodule begins as one or more minute, dark-colored or reddish nodules, and springs from the endometrium, either by a broad base or pedicle—it is soft, spongy, friable and bleeds very profusely on touch; (7) the presence of metastatic deposits, especially in the vagina and lungs, the latter producing cough and bloody expectoration. It is the most fatal of all neoplasms, and considering the rapid progress of the disease, the treatment should consist of complete extirpation of the uterus and vaginal metastasis, if present, as soon as the diagnosis is made from the clinical signs

or histologic examination. Any measure short of this will only aggravate the condition. This should be resorted to, even in the suspected presence of metastatic deposits in other parts of the body, for in a few cases these secondary deposits disappeared after the primary tumor was removed. Ladinski describes a case in detail, and appends a collation of 132 authentic cases.—*Amer. Med.*

Rubber Gloves in Obstetrical Practice.

Since the advent of rubber gloves it has been my practice to use them in all my obstetrical cases, and recently, while effecting an instrumental delivery, with my patient lying across the bed with buttock well over the edge of the bed, the child slipped from my grasp and fell to the floor, rupturing the cord. The child being dead, no damage was done, but, nevertheless, the occurrence was decidedly embarrassing. This was due to the slippiness of the gloves, and could have been avoided by the use of a piece of sterile gauze between the gloves and the baby.

In publishing this, it is my desire to call the attention of others to the danger and also the means of avoiding it.—(C. B. Powell, M.D., in "*N.Y. Med. Jour.*")

Curettage of the Puerperal Septic Uterus.

In all cases of puerperal fever about seventy-five per cent. are non-septic and about twenty-five per cent. are septic. Therefore, the ignorant operator, indifferent as to precise methods, if he cures all cases, will do an indicated operation in about three-fourths. What will be the result of his work in the other one-fourth—the septic cases?

The commission of the American Gynecological Society, appointed in 1898, made an analysis of every case of puerperal fever reported in the literature of the world for the five preceding years, covering the period during which the bacteriology of the puerperal state was actively promulgated. The two men whose observations are the most reliable and whose treatment of septic cases is identical, Whitridge Williams and Krönig, applied no local treatment whatever to the inside of the uterus, doing nothing to it other than what was necessary to establish the diagnosis; and only having a mortality of five per cent.

Here, then, we have a basis upon which to work, and we are warranted in saying that excepting epidemics of particular virulence, but five per cent. of women with puerperal sepsis will die if the uterus is left alone. The normal mortality of puerperal sepsis then is five per cent. How is this modified by the mistaken curettage of the puerperal septic uterus?

In the analysis made by the commission mentioned, we found that curettage of the uterus when bacteriological examination had been made and the streptococcus found gave the frightful mortality of twenty-two per cent. Since being appointed a member of this commission, and for two years previously, I have adopted and perfected a certain method of treatment which I applied to all cases in which I found the streptococcus present in the uterus. This method of treatment which has been described gave no mortality either in my hands or in those of the gentlemen who have adopted it, except in one class of patients, and these were those who had been curetted before coming into my hands. There were ten such patients, three of whom died, a mortality of $33\frac{1}{3}$ per cent.; and the lesions remote from the pelvis and in the pelvis which were found at the time of operation were in these curetted cases far more general and of a more serious nature than in any others I have seen.—
W. R. Pryor, in the "*Med. Mirror*."

Editorials.

THE HYGIENE OF FASTING.

The *Literary Digest* has something to say about the hygiene of fasting. It tells us that all the great founders of religion have prescribed a certain amount of fasting for their disciples. The reason given is not only the knowledge that it is well for man to conquer his bodily desires, but also the experience that most persons eat too much. To overload the stomach with food is quite as unhealthy as to deluge it with beverages.

The late Charles Purdy, of Chicago, told us that the greatest dietetic sin of the average American was his meat-eating propensity. He eats meat generally twice, frequently three times, a day, thus laying on his secretory organs a task in the disposal of waste products that is physiologically prodigious. We may say that the average Canadian and the average Englishman are equally offenders in this respect. Of course there is nothing new about this sort of preaching. The facts stated have been recognized in all ages of the world.

We may tell the public all about the evils resulting from excessive meat-eating, such as premature hardening of the arteries, premature old age, so-called heart failure, Bright's disease, rheumatism, gout, etc. Our audiences generally give us a fairly respectful hearing, but go on eating meat as before while in what is generally known as good health. The same may be said concerning other dietetic errors, such as the excessive use of sweet and starchy foods.

While we have to regret our utter helplessness in the great majority of cases, no matter how well intended our missionary efforts may be, we must certainly admire the foresight of those who in the early days prescribed fasting for their disciples.

PRELIMINARY EDUCATION IN GREAT BRITAIN.

At the recent meeting of the Ontario Medical Council, one of the members stated that the standard for matriculation for medicine in Ontario during recent years was probably higher than that of Great Britain. That statement was correct; but, before we can derive much comfort from it, we have to consider

what it means. It happens that there has been a strong feeling in England for some time that the British standard for matriculation has been too low.

We learn from the *British Medical Journal* that the following are the requirements at present: English Language, Grammar, and Composition; Latin Grammar, Translation; Arithmetic, Algebra to Simple Equations, Euclid I-III; Greek, or any Modern Language; Logic. A table is published showing the standards of the matriculation examinations for the various professions. The *Journal*, in an editorial on the subject, tells us that the table "shows in particular two things: (1) That the requirements in general education for medicine are decidedly lower than those for other professions with which medicine ought to be supposed to rank, and that, therefore, its requirements are below what is possible in the present state of secondary education; and (2) that the recommendations lately made by the Council of the British Medical Association are no more than what is wise and moderate under the circumstances."

With such a condition of things connected with medical educational matters in Great Britain, our Medical Council in Ontario is quite justified in raising its standard without regard to the present requirements in the Mother Country. Whether the new regulations will give us a well-balanced list of requirements for matriculation in medicine we know not; but we think it will generally be conceded that the Council has taken a very important step in the right direction.

SANITATION AT SUMMER RESORTS.

Great improvements have been made in the sanitary arrangements at many of our summer resorts in recent years. Dr. Bryce, Secretary of the Provincial Board of Health, deserves much credit for the good work he has accomplished in many localities, but especially in the Muskoka district. A few years ago he pointed out the grave dangers which then existed, and recommended prompt action to counteract them. He was greatly assisted by the Muskoka Lakes Association, which accepted his recommendations in their entirety, and urged the residents to co-operate.

The result has been quite satisfactory. The caretakers of hotels and cottages are not allowed under any circumstances to discharge animal matter into the lakes. All sewage is received in septic tanks, from which the liquid portion is allowed to flow through a system of tiles laid a few inches below the surface of the ground. The various steamers on the lakes are now extremely careful to avoid as far as possible throwing over-board refuse matter. Many vessels have adopted methods of filtration of all refuse liquids. Dr. Bryce considers that the waters of the Muskoka lakes may now be used for drinking purposes with perfect safety.

Many of the resorts in other parts of Ontario are under exceedingly good managements. Among the best of these is DeGrassi Point, on Lake Simcoe, where Drs. Temple, Macdonald and Burnham, of Toronto, have summer residences. When we come to certain localities much nearer Toronto, where large numbers are huddled together in all sorts of habitations, we regret to say that sanitary regulations (if any can be said to exist at all) are sadly crude in their nature. There is much work for Dr. Bryce yet to do before the sanitary conditions can be considered satisfactory at all the summer resorts of Ontario.

THE CANADIAN MEDICAL ASSOCIATION.

The next meeting of the Canadian Medical Association will be held in Montreal, September 16th, 17th and 18th. Through the kindness of the General Secretary, Dr. George Elliott, of Toronto, we were able to announce in our July issue the complete arrangements which had been made up to that time. We have not now much to add. The Local Committee of Arrangements have, we understand, completed their programme, and will be ready on the morning of September 16th to extend a hearty welcome to all the visiting members.

Many of the older members of the Association have very pleasant recollections of meetings held in Montreal. There is, perhaps, no city in Canada where the resident physicians extend to the visitors such boundless hospitality. We are told that from a literary point of view the coming meeting will be far above the average.

Intending delegates should take note of the following additional information issued from the Transportation Department: Owing to a clerical error relating to points east of Montreal, the announcement should have read—If ten (10 or more delegates are in attendance from Quebec City, Megantic and east thereof, holding Standard Convention Certificates, delegates from such points will be issued tickets free for return.

A side trip *via* the Richelieu & Ontario Navigation Company has been arranged, to Quebec City from Montreal at \$4.00 for the round trip.

The time limit for delegates attending from points west of Fort William has been extended to the 12th of October, permitting delegates from the west to arrive home by that date.

Delegates may go and return by the Richelieu & Ontario steamers in the usual way by asking for that route and obtaining a Standard Convention Certificate.

The Entertainment Committee, of which Dr. H. S. Birkett is Chairman, has arranged the following programme: Tuesday, a garden party; Wednesday, the Grand Trunk Railway has invited the members of the Association to inspect the Victoria Bridge and will take them to Laehine where a lunch will be served. In the evening there will be a smoking concert in the Victoria Rifles' Armory.

A fine list of papers has been promised, which in addition to clinics in the various hospitals and the Pathological Museum, will comprise a programme which will prove both interesting and instructive.

Any further information may be secured by applying to the Local Secretary, Dr. C. F. Martin, 33 Durocher street, Dr. J. Alex. Hutchison, Chairman of the Transportation Committee, 70 McKay street, Montreal: or to Dr. George Elliott, 129 John street, Toronto, General Secretary.

PROVISIONAL PROGRAMME.

The General Meetings and Evening Addresses will be held in No. III Lecture Room, Medical Faculty, McGill University. The Sections will meet in other lecture rooms of the same building.

FIRST DAY.

9.30 a.m.—General Meeting: Proposal of Members, Notices of Motions, etc., Striking of Committees.

10.30 a.m.—Meetings of Sections.

SURGICAL SECTION.

Papers—A. Primrose, Toronto—Filariasis cured by operation.

Dr. Perry Goldsmith, Belleville—Hemorrhage in Removal of Adenoids and Tonsils.

Papers—H. D. Hamilton, Montreal—Complete Occlusion of Posterior Naris.

Dr. Casey A. Wood, Chicago—Empyema of Frontal Sinus.

MEDICAL SECTION.

Papers—John Hunter, Toronto—Pleurisy as associated with Tuberculosis.

A. E. Orr, Montreal—On Blood Pressure.

G. A. Charlton, Montreal—Anemia due to Toxines.

Dr. J. R. Clouston, Huntingdon—The Country Doctor of To-day.

2.00 p.m.—General Meeting.

3.00 p.m.—Address in Surgery by John Stewart, of Halifax, N.S.

5.00 p.m.—Garden Party at the Residence of Mr. Jas. Ross, Peel St.

8.15 p.m.—President's Address, followed by Lantern Demonstration on the Exanthemata, by Dr. Corlett, of Cleveland, Ohio.

SECOND DAY.

8.00 a.m.—Exhibition of Cases at the different hospitals.

Montreal General Hospital: Surgical Cases.

Royal Victoria Hospital: Medical Cases.

Hotel Dieu: Medical Cases.

Notre Dame Hospital: Surgical Cases.

9.30 a.m.—General Meeting: followed by a discussion on "Diseases of the Gall Bladder and Bile Ducts."

(a) Medical Diagnosis—Introduced by Dr. A. McPhedran, Toronto.

(b) Medical Treatment—Introduced by Dr. A. D. Blackader, Montreal.

(c) Surgical Diagnosis—Introduced by Dr. Jas. Bell, Montreal.

(d) Surgical Treatment—Introduced by Dr. J. F. W. Ross, Toronto, followed by Dr. G. E. Armstrong, Montreal.

2.00 p.m.

MEDICAL SECTION.

Papers—Dr. J. F. Macdonald, Hopewell, N.S.—On Tuberculosis.

Drs. Starr and McKenzie, Toronto—Multiple Sarcoma.

Dr. Maude E. Abbott, Montreal—Methods of Classification in Medical Museums.

A. D. Shirres, Montreal—Degeneration of Spinal Cord in Anemias, etc.

SURGICAL SECTION.

Papers—G. A. Peters, Toronto—A New Symptom of Intestinal Paralysis in Peritonitis.

Dr. A. H. Ferguson, Chicago—Removal of Prostate by Perineal Incision.

G. E. Armstrong, Montreal—Treatment of Prostatic Hypertrophy by Suprapubic Incision.

Dr. J. O. Orr, Toronto—Artificial Astigmatism.

Dr. Burnham, Toronto—Sympathetic Ophthalmia.

Dr. Monod, Montreal.

Dr. A. E. Garrow, Montreal.

OBSTETRIC AND GYNECOLOGIC SECTION.

Papers—Dr. Robinson, Ottawa—Normal Labor.

Dr. Laphorn Smith, Montreal.

Dr. Lockhart, Montreal.

Dr. Chipman, Montreal.

8.15 p.m.—Address in Medicine by Dr. Wm. Osler, Baltimore, followed by Reception in Engineering Building at 9 o'clock.

THIRD DAY.

8.00 a.m.—Exhibition of Cases at the different hospitals.

Montreal General Hospital : Medical Cases.

Royal Victoria Hospital : Surgical Cases.

Hotel Dieu : Surgical Cases.

Notre Dame Hospital : Medical Cases.

9.30 a.m.—General Meeting : Reception of Reports from Committees.
General Business.

10.30 a.m.

Papers—Dr. Robinson, New York—X-Ray Treatment of Cancer.

Dr. Girdwood, Montreal—X-Ray as Diagnostic and Curative.

W. F. Hamilton, Montreal—X-Ray as Diagnostic Agent in
Thoracic Diseases.

S. F. Wilson, Montreal—On the Use of High Potentials in X-Ray
Work.

The afternoon will be given over to an excursion by rail over Victoria Bridge and thence to Lachine (through the courtesy of the Grand Trunk Railway). From here the Steamer Duchess of York will make the trip up Lake St. Louis and run the Lachine Rapids, arriving in the city about 5.30 p.m. (Lunch on board Steamer.) At 8.30 a "Smoker" will be given in the Victoria Rifles' Armory, Cathcart street.

The Proposed Bill for Treatment of Inebriates at St. Michael's Hospital.

After a service of eight and a half years as one of the attending physicians of St. Michael's Hospital, Dr. A. M. Rosebrugh, of Toronto, felt compelled, over a year ago, to retire therefrom to enable him to devote more time to the study and treatment of inebriates and the adoption of the proposed bill for their economic treatment. Upon his retirement he was presented by his confreres with a testimonial as follows:

Resolved, That in view of Dr. Rosebrugh's long and faithful service at the hospital, and also in view of his devotion to the interests of the unfortunate inebriates, we, the attending staff of the hospital, desire to place on record our appreciation of those services and to wish him every success in the line of work he has mapped out for himself.

Resolved, Secondly, that we take this opportunity of expressing our unqualified approval of the proposed bill now under the consideration of the Ontario Government for the economic treatment of pauper inebriates, and we would be much gratified if members of the medical profession could see their way to an endeavor to bring their personal influence to bear on behalf of this important measure, and more particularly with a view of securing the co-operation of their representatives in the Ontario Legislature.

This testimonial or endorsement was signed as follows: H. B. Anderson, H. A. Bruce, Graham Chambers, I. H. Cameron, James F. W. Ross, J. Guinane, A. H. Garratt, H. J. Hamilton, Walter McKeown, T. F. McMahon, R. B. Nevitt, Wm. Oldright, G. Silverthorne, G. A. Bingham, J. F. Uren, L. M. Sweetnam, D. J. Gibb Wishart, Jas. MacCallum, A. Primrose, C. Algernon Temple.

Personals.

Dr. Lelia Skinner has removed to 49 Carlton Street.

Dr. Frederick Winnett, of Toronto, has returned from Europe.

Dr. Thos. M. Armstrong, formerly of Alliston, has removed to Toronto.

Dr. D. Gibb Wishart, of Toronto, spent the month of August on the Georgian Bay.

Dr. Edmund E. King, of Toronto, spent the first two weeks of August at Hastings.

Dr. J. J. Cassidy, of Toronto, is spending the greater part of the summer at Long Branch.

Dr. J. Knox Niven, who returned from South Africa recently, has been appointed house surgeon at Victoria Hospital, London, Ont.

Dr. Harley Smith, who was knocked down on Spadina Avenue and Queen Street, August 2nd, by a waggon, is recovering rapidly, and is attending to his practice.

Dr. McIlwraith, of Carlton Street, who has been one of a party of friends which included Prof. Renous, of Johns Hopkins University, returned from a successful fishing trip at Stony Lake, July 28th.

Dr. W. H. Groves, formerly of Burnhamthorp, has been appointed surgeon of the *Tarquah*, the vessel selected for the use of the Hon. Jos. Chamberlain and the colonial party at the naval review at Spithead.

T. J. Moher, M.D., has been appointed to the position of assistant superintendent of the Asylum for Idiots at Orillia. He will assume his duties on September 1st, and succeed Dr. Clare, who has been transferred to the Asylum for the Insane at Brockville.

Dr. George H. McLaren, son of Lieut.-Col. McLaren, was appointed by the Board of Hospital Governors to the position of resident physician recently vacated by Dr. Edgar. Dr. McLaren will begin his duties at once. He graduated at Trinity University in 1899. He has had hospital experience as resident house surgeon in the Carleton County Hospital at Ottawa, in the Toronto General Hospital, and also in the Hamilton Hospital during his vacations. He spent six months in Edinburgh, and also took the L. R. C. P. S. examination in London.

Obituary.

J. A. S. BRUNELLE, M.D.

Dr. Brunelle, of Montreal, Surgeon at Hotel Dieu, and Professor of Pathology at Laval University died suddenly at Mountain View, New York, August 6th, aged 50.

GEORGE WATERS, M.D.

Dr. Waters, of Cobourg, died after a prolonged illness of three years, August 1st, aged 65. He received his medical education in the Toronto School of Medicine and graduated M.D. (Tor.) in 1868. He was a man of unusual ability, and was soon recognized in Cobourg, where he settled immediately after graduating, as a very skilful physician. He acquired a large practice, and was universally respected by all classes of the community. He was a prominent member of the Liberal party in politics, and was at one election a candidate for the Dominion Parliament.

WILLIAM HENRY KLOCK, M.D.

Dr. Klock died at his home in Ottawa, August 4th, aged 41. He was a graduate of McGill University of the class of '85. After spending some time at post-graduate work in Edinburgh and Glasgow, he settled in Ottawa where he practised until a short time before his death.

THOMAS CHRISTIE, M.D., M.P.

Dr. Christie, member of Parliament for Argenteuil, Quebec, died at Lachute, August 5th, aged 78. He was in many respects a remarkable man, and certainly the most popular man in the County of Argenteuil, where some of his election contests—especially two in which he and Hon. J. J. C. (afterwards Sir John) Abbott were pitted against each other—were of the most vigorous sort. The *Toronto Globe* says of him: "He was a quiet, kindly old man, and his chief strength with his constituents was his known devotion to duty. He was the Doctor McClure of Argenteuil. No distance was too great nor night too wild, dark or cold to cause him to hesitate, even for a moment, when the call from a bedside reached him."

ELIZABETH A. M. CAMERON.

Elizabeth A. M. Cameron, wife of Irving Heward Cameron, M.B., and daughter of the late Henry Hover Wright, M.D., died at 307 Sherbourne Street, Toronto, August 28th, 1902.

Correspondence.

MEDICAL LITERATURE.

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—Both the authorities and the professors generally of the medical colleges in Canada have hitherto displayed chronic indifference with regard to the creation of a permanent medical literature for this country. At present they show no disposition to change their minds.

The medical institutions of Canada are either faculties of universities or, like Trinity Medical College at Toronto, in direct affiliation with universities. Nevertheless, neither their university associations nor the time-honored standing of medicine as a learned profession, nor yet personal ambition, has led the professors to become authors of medical books. The college authorities on their part have been content to forego literary standing for their institutions, to the extent even of depending entirely on foreign authors for the text-books and books of reference required in the courses of study. This admission of inferiority deserves animadversion. *Sera nunquam est ad Conos, mores via.* Hopes of reformation are to be entertained.

I make no comparisons with the older countries of Europe, but cross the international boundary into the United States, which is a young country like Canada, be it observed, where a striking contrast is exhibited between the vigor and progress of our neighbors in the creation of a national medical literature, and the Canadian inertia and backwardness under comment. Actuated by a praiseworthy ambition, numerous professors of American medical colleges, likewise many physicians on the staff of large hospitals, although not professors in colleges, have written books in great numbers on all the various branches of medicine, which have extensively displaced European text-books for college use, as well as in the libraries of physicians in the United States. They have done the same in Canada.

American medical authors have gained a position of equality with those of Europe in the great medical world of letters. The first move yet remains to be taken by Canadian professors of medicine to acquire similar standing. The general catalogues of medical books are in evidence. According to custom the annual announcements of the Canadian medical colleges contain lists of the text-books and books of reference recommended to the students for study, and adopted by the professors as authorities. Not a work mentioned in those lists, that I can discover, is written by a professor in any of those colleges. The

majority of the books are of American production. The balance are European. Such abject dependence on foreign authors for college text-books is most censurable.

An excuse for this condition of affairs has been heard to the following effect: The demand for works written by Canadian medical authors would probably be confined to this country, and on account of the small population would be published at a loss. This excuse implies that Canadian professors of medicine have no love of authorship of medical literature for its own sake, which I am loath to believe. For its rejection one reason is supplied by the well-known aphorism, "there is always room at the top" for medical men. Let the professors of Canadian medical colleges write books of as high a grade of excellence as that which they boast is maintained by their institutions in the education of students to become successful physicians, both at home and abroad, and their works will be read on their merits outside Canada. With regard to the home demand, I point out, there are 6,000 physicians in Canada, the number constantly increasing, who are available to purchase Canadian medical works, and are doubtless willing to do so if they are really meritorious. The authorities and professors of the Canadian medical colleges can easily arrange the details of the college curriculums to secure the use of designated Canadian text-books by their immense attendance of students.

The policy should be established for Canada to acquire like standing with the United States in the medical world of letters. Following precedents set in other important activities, as an expeditious move towards the desired production of superior Canadian medical text-books, I suggest that a conference be held of representatives from the medical colleges of Canada to procure united and harmonious action. I trust there are professors of high scholarly and professional attainments available to write such books.

Yours truly,

LUCIUS S. OILLE, M.D.

ST. CATHARINES, August 6th, 1902.

IS MUSKOKA A GOOD PLACE FOR CONSUMPTIVES?

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—I notice in your August number a letter from Dr. Playter, in which he answers the question, "Is Muskoka a good place for consumptives?" It is a somewhat revised copy of a letter signed "Medical Practitioner," which appeared in the *Ottawa Citizen* of June 13th and the *Montreal Star* of July 5th.

Your correspondent, after informing us he has given a good

deal of attention to the meteorological conditions and elevations of many localities in Ontario and Quebec states that he thinks Muskoka is not a good locality for the tuberculous. Had your correspondent studied the meteorological conditions of Muskoka amongst the "many localities," he would be in a better position to undertake to answer the question so often propounded to him: but when he comes to the conclusion that Muskoka "is too damp, and otherwise very unsuited for the tuberculous," from data supplied by (1) "a patient now under my care who spent last summer in Huntsville;" (2) "a well known Toronto practitioner, who could always wring water from his shirt after it had hung in his room all night when up there," and (3) "a physician who has resided many summers in Muskoka," I fear we cannot attach much weight or importance to his opinion.

Before giving publicity to such a letter why did it not occur to Dr. Playter to look up the records of the Meteorological Service of Canada, where he can get very accurate data.

Now what are the facts regarding moisture of the air in Muskoka? As perhaps more cases of tuberculosis are sent to Gravenhurst than to any other point in Muskoka, let us take the observations recorded at the Gravenhurst station of the Meteorological Service of Canada. Mr. R. F. Stupart, the director of the service, has kindly given me the table of mean relative humidities observed here for the year 1901. The mean for the year is 75.83%. The observations taken at the Gravenhurst station by Mr. T. M. Robinson for the past twenty years show the mean yearly temperature to be about 42 degrees. If your correspondent has really studied climatology as much as he leads us to believe, he will scarcely classify a climate with mean relative humidity of 75.83%, and mean temperature of 42 degrees as moist. For the first five months of 1902, January to May, the relative humidity is but 62%, so that for these months the climate is well within the term "dry." Frequency of mists, as observed by his patient at Huntsville, is at great variance with the last issued report of the Meteorological Service (1899). The Gravenhurst station reports four fogs; the year previous ten were observed. I hope his statements regarding the climate of the Gattineau mountains with their "sparkling air" and "highly vitalized oxygen," and of the other districts nearer Toronto, are based upon more accurate information than that from which he draws his conclusions regarding the climate of Muskoka.

As for the question, "Who can name a case of well marked tuberculosis, say in the early second stage, who has been in any marked measure benefited by residence there?" I would refer your correspondent to a paper I read before the Canadian Medical Association in Toronto in 1899, showing marked improve-

ment in 120 out of 155 cases in all stages. Also to a report in the *Canada Lancet*, September, 1901, page 268, showing of 99 further cases in all stages marked improvement in 70. Many of these cases have been at work again for periods varying from one to four years, in offices, factories, stores, railroads, house-keeping and other employment.

The question of the permanency of the benefit derived from sanatorium treatment in Muskoka will form the subject of a paper to be presented before the Canadian Medical Association in Montreal next month.

J. H. ELLIOTT.

GRAVENHURST, ONT., August 18th.

SURGICAL HINTS.

Never allow a patient with a fractured leg or thigh to lie in a bed which sinks in the middle. This can always be remedied by passing boards under the mattress.

In patients suffering from the effects of violent blows upon the jaws never remove a tooth just because it is loosened. Its tendency is to become again firmly attached, and hence it is always best to wait.

To use a styptic in a case of external hemorrhage is to acknowledge one's inability to properly bandage or compress, or to pick up a vessel. It should always be a procedure of last resort, only permissible in some emergency.

In fractured limbs occurring in children it is always best to employ a plaster of Paris bandage rather than some other form of apparatus. As they cannot realize the necessity for immobilization they will nearly always manage to get rid of anything else.

There is no better recognized rule than the one that every patient, after severe intra-abdominal operations, suffers from severe thirst, and that the free administration of fluids will often cause uncontrollable and dangerous vomiting. Never leave a vase of flowers near the bed, for patients have been known to help themselves from it. Some have even been known to pick up a hot water bag applied to the feet and drink its contents. To diminish thirst use frequent enemata of normal saline solution and give teaspoonfuls of hot water by the mouth, until after all vomiting is stopped.—*International Journal of Surgery*.

Book Reviews.

A System of Physiologic Therapeutics. A practical exposition of the methods other than drug-giving useful in the treatment of the sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic.

Volume I-II Electro-therapy. By GEORGE W. JACOBY, M.D., Consulting Neurologist to the German Hospital, N.Y. City, etc., with 163 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1902.

The system is the first of its kind to be published in America or in the English language, and in many respects differs from similar work in other tongues. These two volumes, which are the first of the series of eleven, are especially worthy to introduce the system to the American medical profession. The system is practical rather than encyclopedic. Each book, while complete in itself, also forms part of an organic whole, and has been written and edited with relation to its place in the system.

Part I, Electrophysics, is divided into six chapters—chapter i., Functional Conceptions; ii., Frictional Electricity; iii., Dynamic Electricity; iv., Effects of the Electric Current; v., Other Methods of Attaining and Altering Electro-motive Force; vi., Varieties of Electro-motive Force.

Part II, Apparatus required for the Therapeutic and Diagnostic Use of Electricity—chapter i., Frictional Electric Apparatus and its use; ii., Galvanic Apparatus and its use; iii., Sources of Current Supply for Diagnostic and Therapeutic Purposes, and the apparatus necessary for its use; iv., Apparatus for Altering Electro-motive Force; v., Roentgen Rays or X-Rays.

Volume II, also in two books, on diagnosis and therapeutics. In addition to Dr. Jacoby's thorough treatment of the general subject of electro-therapy, this volume contains several articles on the use of electricity, in surgery and the specialties of writers of experience and authority. In order that each of these supplementary chapters might be complete in itself, and for convenience of reference, some repetitions of material likewise to be found elsewhere have been permitted to stand. In every such case, however, some new facts have been added or the old facts have been discussed from a new standpoint: so that the reader gains in information more than the book loses in theoretic symmetry. Electricity in Diseases of the Eye, by Edward Jackson; In Diseases of Throat, Nose and Ear, by Wm. Scheppegegrell; In General Surgery, by J. Chalmers Da Costa; In Gynecology, by F. H. Martin, and In Diseases of

the Skin, by A. H. Ohmann-Dumesnil. We can most cordially recommend this system to our readers. Knowledge of these subjects treated of would appear to be absolutely essential to every man who in medical practice desires to be honestly considered "up-to-date."

A Manual of Otology. By GORHAM BACON, A.M., M.D., Professor of Otology in Cornell University Medical College, New York. With an introductory chapter by CLARENCE J. BLAKE, M.D., Professor of Otology in Harvard Medical School, Boston. New (3rd) edition. In one handsome 12mo volume of 437 pages, with 120 engravings and 7 plates in colors and monochrome. Cloth, \$2.25 net. Lea Brothers & Co., publishers, Philadelphia and New York.

This manual is favorably known to all aurists, and the demand for it has been such that the third edition is just now issued.

It is a book written by a specialist for the student and for the general practitioner. The author has succeeded admirably in his effort to include in a compact volume the essentials of otology. To accomplish this he has left out theoretical discussions, and has made every part of the book as practical as possible. The author's wide clinical experience has enabled him to seize upon those points most likely to come to the notice of the family physician and to properly emphasize them. While written for the family physician, however, it is a book which no specialist can read without profit.

If one may be allowed to suggest, the index should be improved when the next edition is called for. It seems unaccountable that such subjects as "Finnitus" and "Vertigo" should not appear in their usual places. The subjects are, of course, properly considered in the body of the work.

The scope of the manual may be judged by the titles of the chapters, which are: I, Anatomy and Physiology; II, Methods of Examination; III, Diseases of the Auricle; IV, Diseases of the External Auditory Meatus; V, Diseases and Injuries of the Drumhead and Middle Ear; VI, Acute Purulent Otitis Media; VII, Adenoid Growths, Enlarged Tonsils, Diseases of the Nasal Passages; VIII, Chronic Catarrhal Otitis Media; IX, Chronic Purulent Otitis Media; X, Granulations and Polypi, Caries and Necrosis of the Temporal Bone; XI, Diseases of the Mastoid Process; XII, Intracranial Complications; XIII, Diseases of the Sound-Perceiving Apparatus; XIV, Deaf Mutism.

The book may be warmly commended for its conciseness, its clear descriptions, its excellent illustrations, and because in its methods of treatment it is modern and thoroughly practical.

J. T. D

Morphinism and Narcomania from opium, cocaine, ether, chloral, chloroform and other narcotic drugs; also the etiology, treatment and medico-legal relations. By T. D. CROMBIE, M.D., Superintendent of Walnut Lodge Hospital, Conn.; Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc. Handsome 12mo of 351 pages. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$2.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

The alarming increase in the last few years of morphomania and the associated various narcomanias imperatively demands immediate attention by the medical profession. Every year the increasing prominence of this psychosis calls for more exact studies, with a fuller recognition of the conditions and causes of the disease. Medicolegally, questions of responsibility have been asked with increasing frequency, and there has been no literature and no study of the subject to afford an intelligent answer until this present volume was initiated.

The special object of this work has been to group the general facts and outline some of the causes and symptoms common to most cases, and to suggest general methods of treatment and prevention. The object could not have been better accomplished. The work gives a general preliminary survey of this new field of psychopathy, and points out the possibilities from a larger and more accurate knowledge, and so indicates degrees of curability at present unknown. The author shows his absolute familiarity with his subject in the clear, concise and in every way admirable work which he has given to the profession, whom he has placed under merited obligations.

Dr. A. M. Rosebrugh, of Confederation Life Building, Toronto, intimates that hereafter he proposes devoting himself more exclusively to the medical treatment of alcoholism. A little over a year ago the doctor retired from the medical staff of St. Michael's Hospital (to which institution he has given his services gratuitously for over eight years) to enable him to devote more time to the study and treatment of inebriety as well as to promote the adoption of the proposed bill for the treatment of indigent inebriates. Dr. Rosebrugh will devote himself more especially to the home-treatment of incipient inebriety.

EXPERIENCES WITH THE USE OF ASPIRIN.*

BY DR. F. WIELSCH, VIENNA.

The therapeutic action of salicylic acid in rheumatic affections is so marked that we are accustomed, in enumerating the various specific remedies, to mention salicylic acid among those in the first rank. Unfortunately, salicylic acid and the salicylate of sodium have a number of undesirable by-effects, which are responsible for the fact that frequently we are compelled to abstain from their use, and almost always from any prolonged administration.

With the hope of retaining the beneficial action of salicylic acid and eliminating its objectionable features new derivatives are constantly being introduced, and although their number has become quite considerable none of them has been able to displace the salicylate of sodium. Even though their by-effects are not identical with those of the salicylate, they exhibit other disagreeable properties due to the other components.

In aspirin, or acetyl salicylic acid, no effect was to be expected from its other component, and hence there only remained the fear that the salicylic acid split up in the organism might produce sequelæ similar to those of salicylate of sodium. Clinical observations, however, showed that while the therapeutic action of aspirin was at least equal to that of the salicylate of sodium the sequelæ of the latter are usually absent, or at least are less intense and unpleasant.

My experiments with the drug were made in the medical clinic of the University of Vienna, under the direction of Professor Neuser. Even the first case illustrates the superior effect of aspirin over that of the salicylate of sodium.

Case I. A. B., 40 years old, suffered in the autumn of 1897 with pains in the left knee, which became swollen, together with the foot and toes. For a number of weeks she took salicylic acid until vomiting ensued. Improvement was not obtained, and, on the contrary, the right knee and ankle began to swell. Citric acid in water afforded some amelioration, but no permanent result, while the use of sulphur baths for three months proved equally inefficient. On April 20th, 1899, when admitted to our clinic, the shoulder joints were found painful; the elbow joints in a position of flexion, puffed, and eliciting a grating sound when moved. The right wrist was deformed, the left somewhat less. The movements of the left hip joint were quite free, while the right was completely fixed; both knees were markedly swollen and flexed at an angle of about 150°. The ankles were painful. Walking was impossible.

* Translated for the CANADIAN PRACTITIONER AND REVIEW from *Wiener Med. Presse*, No. 5, 1902.

The patient received sodium salicylate, fifteen grains five times daily, which produced gastric oppression, tinnitus, and later vomiting. April 26th, she was given eight grains of aspirin and fifteen grains of bicarbonate of soda, three times daily. They produced no gastric disturbance of any account, although the patient complained of eructations of unpleasant gases. The bicarbonate of soda was therefore omitted and aspirin alone administered. Under its use the patient improved remarkably, the appetite returned, and on May 2nd the pains in the joints had completely disappeared. The swellings as far as they were not due to chronic articular changes subsided, and the others were improved by massage to such an extent that the patient was able to walk about with the aid of a cane, and on May 31st left the hospital.

Case 2. M. W., 22 years old, was admitted to the clinic with a complicated lesion of the heart, and owing to pains in the knee and ankle was unable to walk about. Aspirin, forty-five grains daily, caused complete disappearance of the pains in three days.

Case 3. M. M., 19 years old, had suffered since her 17th year from recurrent articular rheumatism. She complained of pains in the hips and swelling of the ankles. Aspirin, sixty grains daily, relieved the pains after four days, although movement of the hips still gave rise to some discomfort.

Case 4. M. B., 26 years old, had suffered since eight days with pains in the left wrist and shoulder joints, left knee and hip joints, and both ankles. The joints were reddened and swollen. Aspirin, ninety grains daily was administered, and at the end of four days she was completely free from pains, while the joints were readily movable, both actively and passively, and no longer showed any swelling.

Case 5. M. B., 19 years old, was attacked towards the end of September with swelling of the ankles and spasms in the facial muscles, especially the eyelids. Soon afterwards the upper and lower extremities were also affected with muscular spasm, showing the peculiar character of chorea. When admitted to the clinic, November 6th, the patient had chronic twitchings of the face and extremities, in the latter especially on walking. After the administration of aspirin, seventy-five grains daily, the condition improved to such an extent that the patient was able to leave the hospital at the end of eight days without any marked signs of disease, the twitchings having almost completely disappeared.

Case 6. S. A., 41 years old, was attacked two years ago with acute rheumatism. In April, 1899, the pains recurred in the knees and ankles, and she complained of pains in the neck. August 16th, 1899, the left knee joint was markedly swollen,

the skin tense, shining and reddened. It was excessively painful to the touch. The tibia was also sensitive to pressure. The right knee joint was less painful, while the ankles were swollen, the skin reddened, movement restricted, with marked tenderness to pressure. There was a complete loss of appetite. Aspirin, fifteen grains, was given four times daily, and on August 18th the right knee joint was painless; the redness and swelling of the ankles had disappeared, while the left knee joint had lost its redness, but was otherwise unchanged. August 20th, the swelling of the left knee joint had also disappeared but some pain persisted. The appetite constantly increased, although from now on the condition remained unchanged. While the swelling disappeared, the movements in the left knee joint were restricted, so that the patient limped with the left leg. September 5th, aspirin was discontinued, and six days afterwards the patient left the hospital.

Case 7. M. H., 11 years old, had suffered with cardiac trouble since her 7th year. In May, 1899, she caught cold, complained of headache, and pains in the neck. Later the left ankle became reddened, swollen and painful, while fever occurred. Notwithstanding three days' rest in bed, the pains increased, and the knee joints began to swell. Moor baths and steam baths were employed, without success. September 9th, 1899, her condition was as follows: Left wrist joint somewhat swollen and painful; the right lower extremity was the seat of an anesthetic zone in the territory of the anterior cutaneous nerve. The knee and ankle were painful, somewhat reddened, and markedly swollen. The treatment consisted of seventy-five grains of aspirin daily. September 16th, the swellings had receded considerably, and the pain had completely disappeared, so that the patient could be discharged improved.

Case 8. E. K., 38 years old, was attacked with pains in the hips and later in the other joints twelve years before, after bathing. She recovered under salicylic acid treatment. At the age of 30 there was a recurrence, and at that time salicylic acid was badly tolerated, and its administration always followed by vomiting. Since then the patient has suffered frequently from attacks of pain in various joints, lasting for hours and disappearing spontaneously. Her present attack dates back fourteen days, the pains persisting in the left ankle and knees. These joints began to redden and became swollen. Finally the right shoulder and elbow joints were involved. Ichthyol ointment and other applications proved successful. Salicylate of sodium caused vomiting. Salipyrin was badly tolerated, but gave transient improvement. On admission to the hospital the elbow and shoulder joints were painful, but not reddened. She also presented a complicated valvular lesion of the heart.

Aspirin, fifteen grains, was given five times daily, and salicyl-vasogen applied externally. On the next day the shoulders were free from pain, and after another three days the other joints were also relieved. At the end of eight days the patient left the hospital cured, with the exception of the cardiac lesion.

Case 9. R. O., 24 years old, has suffered from cardiac trouble since a previous attack of acute rheumatism. Fourteen days ago both knees became swollen and painful, these symptoms disappearing after rest in bed. They reappeared two days ago, and were unimproved by rest in bed and medical treatment, on which account the patient sought the hospital, December 19th, 1899. At that time there were present over the knee, leg, and dorsal surface of the feet isolated, reddish, infiltrated patches. The knees were painful on movement. Aspirin was given in doses of forty-five grains daily. December 23rd, the pains in the knees were less marked, but the elbow joints were painful. December 25th, all the pains had disappeared, there being only traces of the erythema. Tinnitus occurred, for which reason aspirin was discontinued. December 27th, all the disturbances had vanished, and on the following day the patient could be discharged.

Case 10. A. K., 24 years old, had suffered since fourteen days with loss of appetite, vomiting, headache and constipation. A week later pains occurred in the knees, calves of the legs and feet, which gradually extended to the thighs, hips and back, finally, large red patches appeared on the chest, back, face, hands and feet. The fingers and hands began to swell up. The eruption was so itchy that the patient was unable to sleep. Calomel, seven grains, was administered, followed by aspirin, 75 grains. As early as the following day the eruption began to disappear, and the pains in the joints subsided. After four days the patient could be discharged completely cured.

Many similar cases could be cited. Those which have been reported comprise only a part of the observations made during a part of the first year after commencing the use of aspirin. Since then, aspirin has been permanently adopted in the clinic, and has been given equal place with the salicylate of sodium. Having continued our observations now for the last three years in hundreds of cases, we feel that we may justly assume to have collected sufficient data to entitle us to a positive decision regarding the value of aspirin as an anti-rheumatic.

Summarizing the results obtained, not only in the cases referred to above, but in the many others which are not described here, we are able to say that aspirin is to be preferred to salicylate of sodium, especially on account of its taste. While salicylate of sodium, owing to its sweetish taste, excites

aversion sooner or later, aspirin has a slight acidulous flavor. This taste is not marked, and never unpleasant or nauseating. In fact, some patients who took aspirin by mouth regarded it as tasteless. This comparative tastelessness is one of the properties which enables it to be given for prolonged periods. When aspirin has reached the stomach it never causes vomiting or discomfort. Occasionally there is eructation, but this can be easily avoided by administering it after eating. The appetite never was impaired, but rather became better. This was due to the fact, as shown by experiments in the test-tube, that aspirin decomposes extremely slowly in the presence of acid, and during its brief sojourn in the stomach therefore undergoes practically no decomposition. When salicylate of sodium is ingested, it combines with a large part of the hydrochloric acid in the stomach and free salicylic acid is formed, while aspirin does not affect the gastric juice. The salicylic effect does not manifest itself until the drug reaches the alkaline intestinal juice, where it is decomposed into acetic and salicylic acid. As one of its components, the acetic acid, produces practically no by-effects, the action of the second constituent alone is to be considered. Several hours after taking a dose of aspirin there is some sweating, with a fall of temperature in febrile cases.

Deafness was never observed during its use as well as heaviness in the head and delirium, while tinnitus was present in a few instances. Some patients were free from tinnitus after aspirin, although salicylate of sodium, even in small doses, at once produced this symptom.

In rheumatic articular pains the aspirin treatment acts as a sedative. Especially violent pains became more bearable at the end of twelve hours and disappeared at the end of two or three days. The swellings of the joints subsided perceptibly if they were recent and purely of rheumatic character, although in chronic cases the effect, as might be expected, was much slower and less reliable, and had to be supplemented by massage, steam baths, and hot compresses. In cases resulting from gonococci the analgesic action was likewise favorable, but not so marked as in true rheumatism. The heart, if already affected, was not influenced either for the better or worse. Collapse or very serious symptoms were never observed in any case.

We administered aspirin ordinarily in amounts of sixty grains daily, or, at the most, ninety grains, in doses of eight to fifteen grains after meals. This dose was exceeded in two instances without any advantages or disadvantages. If the salicylate of sodium had been given in a similar manner we would have often had occasion to observe unpleasant by-effects, compelling us to discontinue it, while aspirin has been given

for weeks without any such necessity. The urine always gave a salicylic acid reaction.

If we compare our observations with those of other authors, they coincide almost completely as far as the use of the drug in acute rheumatism is concerned. They also noted a reduction of temperature and subsidence of the pains and swelling in acute rheumatism and improvement in the chronic form. Less favorable results have been obtained in gonorrheal urethritis, these consisting only in palliative effects. Disturbances of the digestive tract are reported only in very rare instances: in fact, one author found that when the drug was given on an empty stomach it never caused the least discomfort.

Among these authors the one who is least satisfied is Gazert, who gave the remedy in doses of forty-five grains, and observed gastric disturbances in one-third of the cases treated; but even he noticed such disturbances very rarely under doses of fifteen grains. Almost every author mentions isolated instances of tinnitus.

Aspirin has been praised in other rheumatic affections, especially in diseases of the eyes. In conditions of non-rheumatic origin, such as pleurisy with effusion, it is also said to have proved serviceable. In a case of pleurisy in our clinic the quantity of urine failed to increase during its administration, nor was there any other change observed, although the patient was almost constantly bathed in perspiration.

A number of authors have tried aspirin as an anti-neuralgic, and have found it serviceable in facial neuralgias, migraine, pains of gout, inoperable cancer of the uterus, ulcer of the stomach, tabes, etc.

As regards the use of aspirin as an antipyretic in diseases of a non-rheumatic character, we have had no experiences of our own, while those of other authors are divergent. While it is praised in influenza, and even in malaria, we are warned against its use in typhoid. In this disease it was tested by Kropil and Gazert in several cases, and both observed serious symptoms after its administration. In the fever of tuberculous persons it should also be used cautiously, the initial dose not exceeding $1\frac{1}{2}$ to 3 grains, as otherwise the reduction of temperature may be too abrupt and debilitating.

The final conclusion from my own observations as well as those of others, is that aspirin is a salicylic acid preparation with a pronounced and pure salicylic influence. It is equal to the salicylate of sodium in its antirheumatic action, and deserves preference over the latter, especially on account of the absence of by-effects. For this reason it is possible to give aspirin up to the point of obtaining a decided salicylic action wherever this is feasible, and also of administering it for continued periods in chronic cases.

Selections.

Epistaxis.

The older methods of treatment for this condition, while ordinarily reasonably positive and satisfactory, must give way to the newer method of the employment of the extract of the suprarenal gland. Not only is the application of this solution followed by almost instantaneous blanching of the mucous membrane and stoppage of the hemorrhage, but it has a very wide range of effect. Except in aged persons with a cardiopathic condition causing the epistaxis the method is universally applicable and valuable.—*The Clinical Review*.

Normal Salt Solution.

Himmelsbach, in *N. W. Lancet*, recommends, as a matter of great importance, relatively small and repeated injections of the normal salt solution subcutaneously. The quantities formerly given in this manner, from one to three pints, are entirely unnecessary, and according to his statement an equally specific effect can be produced upon the renal organs when the solution is given in smaller amounts, as shown by the elimination which is many times greater than the quantity injected. This has the advantage that the time taken to do the operation is curtailed, which is of great importance in children. Lenhartz advocates injections subcutaneously of two to six ounces every three or four hours, and states that they have a better diuretic effect and cause less strain on the kidneys than a pint given several times a day.—*Medical Review*.

Combined Operations in Pelvic and Abdominal Surgery.

In summing up the evidence in favor of combined operations, it may be said, experience has demonstrated, on the one hand, that several operations performed at the same sitting do not compromise the life of the patient to any appreciable degree; that the extra time, within reasonable limits, required for the execution of the various procedures does not necessarily augment the dangers to be anticipated from any surgical act; that repair in the individual parts involved goes on as uninterruptedly and successfully, and that convalescence is as rapid and satisfactory as when but a single uncomplicated operation is performed. While, on the other hand, following the passing of the ordeal, the patient's mind remains tranquil and undisturbed by the dread of possible future treatment and the fear of the anesthetic, convalescence is not retarded by the presence of morbid structures or conditions left behind, and recovery is not partial, but total and complete.

Therefore, in every instance, whatever is necessary should be

done, whether the conditions lie within the pelvis, the abdomen, or both; and the limit of execution, should be gauged only by the general condition of the patient, her behavior under the anæsthetic, and the inherent dangers of the operations to be performed. These, together with experience, skilful operating, strict asepticism, and watchful care of the patient, are the *sine qua non* of success.—*Manton, Phila. Med. Jour.*

Varieties of Enemata and Methods of Preparing the Same.

Of much practical value is a knowledge of not only the indications for the employment of rectal injections, but the different varieties thereof and their immediate method of preparation. A physician's resources are oftentimes abundantly enlarged by a practical adjustment to circumstances in this direction. For instance, purgative enemata may be necessary in patients who cannot well bear, or who respond feebly to cathartics by the mouth. After abdominal operations a purgative enema may be called for, and also in cases of intestinal obstruction and in many varieties of abdominal pain. Then again to supplement aperients given by the mouth cathartic enemata may be resorted to, likewise in almost all cases preceding operative work in the abdomen. An aperient enema should also be given before rectal and vaginal examinations, and before the administration of an anæsthetic.

The simplest form of an enema for unloading the bowels is a mixture of soft soap and warm water, the activity of which may be increased by adding about half an ounce of turpentine, a handful of salt or a little molasses. In lieu of a watery enema (sometimes objectionable on account of the quantity necessary—one to three pints) four to six ounces of warm olive oil, two to four ounces of castor oil, or one ounce of glycerine, may be used. A little turpentine will aid any of these. Turpentine has always seemed especially valuable when there is much intestinal flatus.

Nutrient enemata become highly valuable in quite a number of conditions, among which may be mentioned persistent vomiting of pregnancy, gastric neuroses of other types, gastric ulcer, and other gastric diseased states, various intestinal conditions and operations upon the stomach and bowels, and sometimes in diseased conditions of the mouth, throat and esophagus. Nutrient enema usually are made up with peptonized milk, to which is added beef tea or extract, beaten eggs, various gruels and brandy as may be desired.

A cleansing enema should always precede one containing nourishment. A disregard of this rule has caused many a failure.

Normal salt solution, consisting of one dram of salt to one

pint of water at a temperature of 100° F., is now very commonly employed to overcome collapse after operations and general shock from hemorrhage or other cause.

In cases of heart failure, opium poisoning and other forms of depression, stimulating enemata are many times of value. These may consist of brandy and hot water, strong hot coffee, aromatic spirits of ammonia with hot water. While the water should be hot, care should be exercised that it is not at such temperature as to damage the mucous lining of the bowel.

Medicines may sometimes require administrations per rectum. Chloral, the bromides, strychnia, opiates, etc., in proper solutions and dilution, undoubtedly can be made effectual in this manner. In order to be certain of the use of the full portion of the drug, when used in this way, it is best to make a separate and smaller mixture of the medicament which may be injected and followed by such quantity of diluent as can readily be retained. In this manner one can be certain of the administration of all of the drug intended.

The old "starch and laudanum" enema, so often mentioned in text-books in relation to the treatment of diarrhea, has frequently been misapplied or not used at all because of ignorance in its preparation, and thus a means almost always readily at hand is lost. The starch and opium enema is made up as follows: a tablespoonful of ordinary starch is rubbed up first with cold water, a thin paste resulting. Boiling water is then added to the consistency of thick gruel. When the preparation is cool such quantity of the tincture of opium as desired is thoroughly incorporated. A high injection with a soft tube is always best.

If a patient can for a time maintain the knee-chest position after an enema, so much the better; but if not, it is more desirable to lie prone upon the abdomen or upon the left side.

Only gentle force should be exerted in giving a rectal injection.

In the experience of some, cold solutions for purgative effects have appeared better, and not without reason is it argued that cold enemata, and not warm, are indicated in those conditions where they are employed almost constantly.—*The Clinical Review*.

The Physiology of Sleep.

It is a remarkable fact that concerning the phenomenon which occupies fully one-third of our lives, there should be so scanty reliable data that no satisfactory explanation has hitherto been arrived at. Sleep is often spoken of as twin brother of death. This, however, is merely poetic fancy. Sleep is in fact, the most important means of repelling death. It is the Nature's great recuperative agent. It is essential

to health, and often forms the most vital factor in the treatment of disease. And yet regarding the physiology of sleep we remain practically in the dark. Even what we may term the pathology of sleep throws but meagre light on its mechanism. A recent writer in our brilliant contemporary, *The Academy and Literature*, attempts to show that sleep is dependent on certain chemical processes, where through the agency of carbonic acid, the nerves are anæsthetised or reduced to immobility. Such a view has certainly much to support it, and what we know of the action of anæsthetics would not lessen the possibility of such being in some measure a probable explanation. The physiology and pathology of sleep stand in need of serious investigation. Accurate knowledge as to the best means of procuring sleep might then be expected to release us from the grasp of a limiting empiricism.—*Medical Press and Circular*.

Observations Concerning Cholelithiasis.

Boas, Berlin (*Muenchener Medicinische Wochenschrift*).—Much has been accomplished in recent years in determining the etiological factors involved in the development of gall-stones. Based upon animal experimentation and careful observation, these new theories are apt to be lasting. Unfortunately, progress in the diagnosis of cholelithiasis has not gone hand in hand with the pathogenesis. Atypical cases of gall-stones are still very rarely diagnosed by those moderately skilled in diagnosis. The author calls attention again to a point in diagnosis to which he referred several years ago, and which has not received proper consideration. At that time he stated that in cholelithiasis there is marked pain upon pressure in the region of the twelfth dorsal vertebra, two or three finger-breadths to the right of the spinal column, extending sometimes to the posterior axillary line, etc. The same exists in acute attacks, and continues for a long period after the acute period has passed. It can even exist for years during the latent period. The pain in the marginal and vesical region may have long since disappeared, while the dorsal pains remain. There are cases, however, in which this sign is absent. In determining the sensitiveness of the liver in inflammatory conditions, attention should be given to the following three regions:—(a) the border of the liver and the region of the gall-bladder; (b) the subcostal portion of the liver; (c) and the posterior surface.

In the differential diagnosis, duodenal ulcer, gastric ulcer and hyperchlorhydria, intestinal neuroses, etc., must be duly considered.

In the discussion of the treatment, the author touches upon the use of Carlsbad water, the proper diet, forced breathing and massage.—*Inter-State Medical Journal*.

Miscellaneous.

Lumbago.

Lumbago, or pain in the back, it is hardly necessary to explain, is a symptom and not a disease. In its ordinary form it is a painful manifestation limited to the muscles of the back, which serve to regain or maintain the erect position, hence it is very apt to follow a strain or effort such as that involved by remaining standing in one position for an unduly long time. Very often the so-called lumbago coincides with, and is probably due to, some functional disturbance of the kidneys: indeed, pain in the back is always an early and prominent symptom of renal congestion. The precise significance of the pain can only be ascertained by further examination and observation. The rheumatic form of lumbago is a very distressing and obstinate affection, but except for the irksome disability which it entails has not much importance. That due to the kidneys, on the other hand, may pass off as suddenly as it has come, or it may prove to be the prelude of graver trouble, according to the degree to which the renal functions are disturbed.—*Medical Press and Circular*.

The Viewpoint in Medicine.

If asked such questions as "How are you getting along?" "How is everything?" "How does the world use you?" nine out of ten will reply in a way going to show that in calculating the degree of success, dollars and cents is the factor with which we compute our progress. Such answers as "I find plenty of opportunity to do good," "Nothing delights me more than the practice of my profession," are rarely heard. "Business is bad," or "Business is good," or "Collections are slow," or "Collections are brisk," are the replies most likely to be received not only in commercial life, but in professional as well. It is said that we get what we want in this world. If money be the chief object for which we strive, its accumulation will be the *summum bonum* of life: if something else—professional honor, scientific investigation, public beneficence—these, too, may be realized. Is it not often true with many of us that what we are hoping to make is secondary only to what we fear we may lose? As professional men—physicians—do we not find ourselves reckoning, too often perhaps, financial gain rather than fraternal good? The sum of our success cannot always be told in figures. When the steward comes to give an account of his stewardship, success will not depend altogether upon the multiplication of the one or the two or the five talents, as the case may be, but rather upon the uses to which they have been put. It may be asked, "Are we not entitled to pecuniary reward?"

Certainly. But viewed from the higher plane it must ever be incidental and subservient. Our mission is to heal. More than seven centuries ago, Maimonides, one of the greatest physicians of the Middle Ages, offered the following prayer: "May the love of my art actuate me at all times: may neither avarice, nor miserliness, nor the thirst for glory or a great reputation engage my mind; for, enemies of truth and philanthropy, they could easily deceive me and make me forgetful of my lofty aim of doing good to Thy children. Endow me with strength of heart and mind, so that both may be always ready to serve the rich and the poor, the good and the wicked, friend and enemy, and that I may never see in the patient anything else but a fellow-creature in pain." A better motto has never been formulated than the one of Esculapius Hippocrates and Aristotle—one that should ever influence the physician in the unselfishness of his chosen calling: "*Not for ourselves alone.*"—*St. Paul Medical Journal.*

Who Should be a Surgeon.

"Every slow and slovenly physician who never did any mechanical work in his life, whose hands are like an elephant's foot, whose joints are as stiff as a thirty-year-old cow's, considers himself a surgeon, competent to practice surgery. So it has kept on and to-day with modern, clean surgery and the wonderful result and the constant lessening in mortality, it is still worse.

"When it is known how large a number recover after operations, every tyro thinks he can do the same thing. He sees perhaps a surgeon operate from a distance, sees how quick and easy it is done, and thus forthwith he rushes in 'where angels fear to tread.' He does not see the years' practice and experience that were required, he does not notice a thousand and one details of an operation, he does not see all the preliminary preparations.

"In the first place he is a poor diagnostician; he will operate on cases that he should not operate upon, he will operate on them when they should not be. In cases that need operation, he hesitates, he trembles, and the 'golden moment has escaped.' Many men just out of college rush out to operate, and the more difficult the operation the more anxious they are to do it. They have seen operations from their seats and know a little anatomy, forthwith they are surgeons. Some old practitioners who have practiced a quarter of a century or more, hearing about the wonderful results and the great fees received by surgeons in the medical centres, forthwith buy a new edition of surgery, read up, and proceed to operate. Fortunately some of these, after they have killed a dozen people, see the error of their ways,

give up and return to practice. If anyone should hint to these people that they are not competent to practice surgery on account of lack of training, they feel very indignant and they say, 'Why, you had to learn. You killed a lot of patients learning this.'

'Because we were obliged to do this in order to open the path for the future, in order to save life, and to lessen suffering for coming generations, that does not say that every Tom, Dick and Harry has got to learn this over again, has got to make those same mistakes we have made. We made the mistakes but have tried constantly to teach the rising generation of surgeons how to avoid the mistakes.'

"The man who has never done any mechanical work, or who was not raised on the farm, or who was not allowed to make a little sleigh or a baseball bat when he was a boy, or who never worked around in the garden, or played ball or the piano, or who never made pills in a drug store, the man who had never developed a mechanical hand from his earliest childhood, will never be a good surgeon. The man who simply studied all his lifetime, and whose father was kind enough to buy him everything from a waggon to a book, who was never taught to draw and to cultivate an artistic eye or to develop the sense of symmetry and proportion, *that man will never be a surgeon* ; it is not in the nature of things.

"If I read, for instance, in a cheap medical journal an editorial something like this: 'We've quit sending. We do our own surgery, having to provide for our own wife, our own children, ourselves. If we don't know how to do an operation we'll go to the post-graduate schools and learn how, and charge accordingly. If we haven't the skill that comes from experience, we'll get it just as the professor got it, by doing the operation at every opportunity till we become adepts.'

"And who can blame us if we determine to do our own work ourselves? Are we not equally M.D.'s, with equal privileges? This reference of cases to specialists is in many cases unnecessary anyhow. Very often it is simply because the doctor is too busy to attend to the matter himself. But the real remedy is for him to charge enough to make it worth his while to buy books and apparatus, to take special instruction and to do the work.

"Do you have many cases of eye, ear, nose and throat affections? Open your purse-strings. Come to the city and take a post course; buy the apparatus. It will cost you up to \$500, but if you cannot make \$1,000 a year out of the results, you are not much of a business man, and not apt to succeed as a doctor.

"If a layman should be careful in selecting his physician, how much more careful should he be in selecting a surgeon? How absurd to let anybody operate who says he can, unless it is known he has had some practice and some experience.

"Finally, you will ask me, 'Who could or should be a surgeon?' and in answer I will say that he must be a well educated physician, must have been a general practitioner and a good therapeutician."—Abstract of Paper by DR. CARSTENS in *Transactions of the Michigan State Medical Society*.

The Treatment of Phthisis With Blue Light.

Kaiser (*Wien. Klin. Woch.*), after making a series of investigations on this subject, draws the following conclusions: (1) Tubercle bacilli in pure culture were killed in thirty minutes by the blue light at a distance of five metres, while they survived the equal illumination by an ordinary arc lamp. (2) Tubercle bacilli in pure culture were pasted on a patient's back, and the blue light was directed on the patient's chest at a distance of five metres for thirty minutes; this was repeated for six days. The bacilli were "weakened." (3) Pure culture of tubercle bacilli were illuminated by a light concentrated through a hollow lens containing a solution of alum and methylene blue with ammonia; they were killed. (4) The same lens was used, and the light was split up into the spectral colors by means of a carbon disulphide prism. Cultures lived in red and yellow light, but were killed in from blue-violet to ultra-violet. (5) A photographic negative with an unused film was pasted on a patient's back in such a way that all light was excluded. The film was illuminated through the patient's body, and a blurred "positive" was obtained.

Following these experiments, Kaiser tested the blue light in two cases of advanced phthisis: after six days night sweats ceased and cough became less; after six weeks (up to the present) diminution of bacilli in sputum. In a case of tuberculous abscesses in the thigh and knee flexion, all treatment that had been applied before (for three months) failed to do any good; as a result of blue light there was healing of all abscesses in four weeks. A case of "weeping" eczema in a child of "tuberculous character" was cured in five weeks.

The author concludes that (1) blue light kills tubercle bacilli; (2) the heat rays are excluded by the hollow lens with cooling arrangement; (3) action of the light is independent of the distance and intensity of the source of light; (4) the light can pierce the body sufficiently strongly—only the chemical rays do so; (5) pure blue light acts strongly as a resorbing agent; and (6) blue light has a local sedative action if the rays are concentrated, and may even produce anesthesia.

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PRESIDENTIAL ADDRESS.*

By FRANCIS J. SHEPHERD, M.D.

It has been said by a well-known scientific authority that bores must be classed among the enemies of the human race, and perhaps one of the most objectionable species of this large genus is the Presidential Address Bore. One of the "privileges" of the President of this Association is to deliver the annual address; he is the victim of circumstances, and so the members of the Association must not find fault if bored. I trust, however, that what I say will not prove altogether uninteresting—at any rate if you are bored it will not be for long, for my address will have one thing to recommend it—that is, brevity.

First, let me welcome you all heartily to our city; I hope your visit will be of value to you, not only from a professional standpoint, but also from a social one. The great advantage of these meetings is not so much what one learns from the papers and discussions of the sections, but from that personal intercourse to which such occasions give opportunity—the interchange of thoughts and ideas and the estimating of our fellow-members, not only as surgeons and physicians, but as men, who, like ourselves, are doing their best in this life and trying to solve the difficult problems which are continually confronting us all. At these meetings many friendships are made which last a lifetime. As Horace says, "There is no pleasure equal to that given by a pleasant friend," and the members of the profession from the extreme limits of this great Dominion, meet and are brought together under the most favorable circumstances. Teachers meet their old pupils, and students their old companions, and, perhaps, rivals. The

* Delivered before the Canadian Medical Association, Montreal, Sept. 16th, 1902.

mystery and clouds which enveloped the old professor, who was looked upon with awe and from a distance, are now dispelled and reveal a human being even as themselves. The man who is only known by his books, or by what he has written in the leading journals, and whose opinion, perhaps, has been regarded as almost infallible, often appears as a very ordinary individual without much personality; others again, of whom we have never heard, impress us much by their force of character and the intimate knowledge of their profession which they possess. The man from the east who is slow to adopt new ideas and new methods, is rendered almost breathless by the procedures, apparently most successful, of his professional brother from the west. One reacts on the other; the pace of one is hastened and that of the other retarded, to the benefit of both.

This certainly is a great opportunity for all of us to interchange ideas, and such meetings tend to weld the profession together and to obliterate sectional jealousies. It is well sometimes to remember that we are all Canadians, as well as medical men and that our interests are those of the Empire as well as of Canada. This community of interest will be much strengthened and accentuated if the Dominion Registration Bill, which has, during the last session, been passed by the Dominion Parliament be, with the consent of the various provinces, put into force.

DR. RODDICK'S BILL.

Ever since I commenced the study of medicine, in 1869, I have heard about a Dominion Registration Bill. For years, at every meeting of this Association it was discussed. Several bills were drawn up and such men as the Hon. Dr. Parker, of Halifax, Sir Charles Tupper, Dr. R. P. Howard and others, were engaged in trying to frame a bill which would be acceptable to all parties, but all in vain; failure after failure resulted, and for a time it was given up in despair. At last a champion arose who valiantly attacked the dragon and successfully vanquished him. You all know him—Dr. T. G. Roddick. I congratulate him on the courage, persistency, skill and ability with which he has pushed through his Medical Bill in the face of many obstacles. It remains now for the different provinces to pass a short act by which the Dominion Bill can be worked. The Dominion is ready for the carrying out of the provisions of the Bill as soon as the provinces agree to it, and I trust that no one province will decline to act, and so selfishly render the Dominion Bill inoperative. The first step has been taken and the first barrier overcome; let us hope now that the other obstacles will soon be removed, and then a man who has

fulfilled all the provincial requirements and passed before the Dominion Board will have the whole Empire ready for him to practice in and all the public services at his disposal. Why, I know of several cases where men, serving as surgeons during the late war in South Africa, could not attend Imperial troops because, forsooth, they had not a license to practice in Great Britain, nor could they ever hope to join the Army and Navy Medical Services.

Such a condition of things is a reflection on our citizenship and a slur on our Imperialism. It only remains for the provinces to remove the disability by accepting the Roddick Bill, and so enlarging our opportunities by throwing open practically the whole British Empire to our medical men.

MEDICAL PROGRESS.

It would be useless for me to attempt to describe to you the great advances that have of late been made in medical science, for you are already very familiar with them. For some time it was thought that surgery was outstripping medicine in the race for knowledge, and many regions which were in the exclusive possession of the physician were rudely annexed by the surgeon, and even yet the surgeon is not satisfied, but like the horseleech's daughter, calls for more. Only this year that disease so intimately associated with the physician and named after one—Bright's Disease—has been treated surgically, and with some success. The surgeon is still struggling for the possession of this, up until now, distinctly medical disease which the physician is not so willing to part with, waiting with his usual caution for more light.

However, medicine has not been standing still, but has made many advances and has done most magnificent work in various departments. It has fought for this knowledge with great courage and has left on the battlefield not a few heroes, who have fallen bravely fighting with their faces to the foe. I refer especially to the magnificent work done in Cuba in regard to the discovery of causes of infection of yellow fever. And what is the result? Why, a region which has been for centuries a pest-house at certain periods of the year, has become a veritable sanitarium. Yellow fever has been abolished from Cuba, because it has been proved beyond doubt by experiment that the mosquito conveyed the disease, and that if the breeding places of the mosquito were abolished and the fever patient was isolated so that mosquitos could not bite him, they could not convey the disease to others. The chief honor and praise in these investigations must be awarded to Walter Reed, Carroll and Agramonte. Good work is still going on in the

investigation of malarial fevers, and it is the hope of all of us that this troublesome and widespread disease may in time be abolished. It is useless by ordinary means to hope to destroy or rather exterminate the mosquito, but, by removing stagnant water and covering their breeding places with coal oil, and sleeping at night under nettings, the disease may be in many cases avoided; but, until we can discover some such means as inoculating the mosquito with a fatal disease and so exterminate him, malaria will be more or less always with us, especially in the tropics.

We have all heard much of the white plague (tuberculosis, in the lay and medical press, how it is propagated, how it may be prevented, how it may be cured; the world has become rather hysterical on the subject, and, no doubt, good will come of it all. But there is another plague stalking boldly in our midst, and flaunting its banners with the greatest insolence, carrying off its victims by thousands, and disabling and disfiguring thousands of others, the innocent and the guilty with a remarkable impartiality, and yet no notice is taken of it; it is silently ignored. We must not discuss it or speak of it, or suggest remedies for its extermination: like many things in the Pacific Islands, it is tabooed. We take the utmost care to prevent people catching measles, scarlet fever, chicken-pox, etc., and allow syphilis to come and go amongst us unnoticed and apparently uncared for. It is a most remarkable state of affairs. A poor leper, from whom the chance of taking the disease is small, is shunned, banished and isolated, whilst a syphilitic is allowed to spread the disease at will, without restraint. It is appalling to think of the risk we all run; the innocent suffer often more than the guilty. Because the disease is now a sexual one, although it was not so originally, we must not control it or arrest its spread, or endeavor in any way to ameliorate the condition of those unfortunates who suffer from it. Our neighbors across the line will not allow emigrants with favus to land, but welcome the syphilitic if he have a few dollars in his pocket. Is it not most illogical to build hospitals in order to protect people from measles and scarlet fever, and to allow syphilis to spread itself unchallenged? It is time that the profession took the subject up and educated the public to a better knowledge of sanitary laws.

MODERN LABORATORY TEACHING.

In the wonderful developments of all branches of science, medicine has not lagged behind, and the world generally is becoming much interested in the many discoveries in medical science which have lately taken place. Money is being left and donated in large quantities to stimulate still further exertions

in the line of research: special sums are being set aside for the experimental study of the origin and cure of certain diseases, such as carcinoma, tuberculosis, etc., and immense amounts have quite recently been given by the multi-millionaires for the erection and maintenance of splendid laboratories which are intended not so much for the teaching of students as the encouragement of research work.

The medical school is developing into a huge system of laboratories to the exclusion of the lecture, and even the hospital: for the day has not got any longer and laboratory work takes time. We must not forget, however, that laboratories, triumphs of architecture though they be, and equipped as they are with all the most modern scientific apparatus, will not themselves produce men of science, they will only give them the opportunity of developing. Such giants as Pasteur, Lister, Koch and others, were not produced by magnificent laboratories or splendid inducements of fellowship, etc., they made their opportunities and forced nature, by the power of their intellects, to give up to them her secrets; difficulties only stimulated them to put forth still further efforts. Such men are not found at will, but they are born like poets, only occasionally. To paraphrase Sir Thomas Browne—"they do most by laboratories who could do much without them, and he that chiefly owes himself unto himself is the substantial man."

One danger of this great multiplication of laboratories is that it induces men to pursue original investigation who have not the true scientific spirit, and who are utterly unfit for such work. They frequently collect and publish a mass of useless and undigested material and therefore draw inaccurate conclusions. All this will not redound to the credit of the medical science. However, we must hope for the best, knowing a large amount of good work will be done and many valuable discoveries made. I do not wish it to be inferred that I am opposed to the addition of modern laboratories to our medical schools: they are all necessary, but they must not supplant other work quite as important to a man who wishes to become a practicing physician or surgeon. Again, we must remember that the millennium will not be brought about by laboratories, nor will all scientific problems be solved by them.

There is one laboratory which is not so much frequented now as when I was a student—I refer to the hospital wards. Students, while perhaps more scientific—I say scientific, because nowadays every one who spends much of his time in a laboratory learning the use of all kinds of modern apparatus, including our old friend the microscope, is regarded as having a scientific training—I may say that students while perhaps being more scientific (microscopical and mechanical), have not that intimate

personal knowledge of disease which continued observation at the bedside gives them, so that when started in some out-of-the-way place without their scientific machinery, they are like fish out of water. It may soon be that they will not be able to diagnose a fracture without the X-rays, a suppuration without an elaborate system of cultures of the various cocci, typhoid fever without the Widal test, diphtheria without finding the Klebs-Loeffler bacillus, tuberculosis without getting bacilli in the sputum, and so on without end. Students are not taught to observe so accurately the evident symptoms of disease, and as I say, are becoming mere mechanics who need an armamentarium (which only a great hospital or university can possess) to make an accurate diagnosis of an ordinary disease, the higher and more intellectual means of drawing conclusions by inductive reasoning are almost neglected.

This mode of education may do for the few, but for the many who have to practise away from centres it is not the best method. The reason of it all is that most colleges are now managed by laboratory men, who are specialists from the start, and who have never practised medicine, and so never have appreciated the needs of students who, when they graduate, will have to earn their living by attending sick people. The practitioners who are connected with the colleges are too busy, and, not living on the premises, so to speak, give up the management gladly to those having more time and having new ideas which they wish to have carried out, especially on laboratory lines. They are eager for original investigations and encourage their men to do such and such a piece of work, forgetting that these men have first to learn the rudiments of a profession by which they have in future to make their living, and that the laboratory work is only part of their training.

In a recent address, delivered at the last meeting of the British Medical Association, Dr. William Japp Sinclair says:—"It was the devotion of the gifts of genius, of the highest intellectual endowment, to clinical investigations, which lent dignity to the labors of former generations of physicians and surgeons, and made their counsels fruitful in conferring permanent benefit on humanity. Enlightened and patient industry, and success in observation and treatment of disease, were long and tedious, but the only sure way to professional distinction and honor. But now, since the advent of the modern development of pathology, and especially of bacteriology, the unknown is accepted as magnificent by the whole medical profession, and a certain distinction can be achieved without much talent or industry: the microtome and the cultivation tube (though work connected with them often resembles a sad mechanic exercise) have provided a royal road for men into

fields of clinical work they have not known how to cultivate. They have shirked the apprenticeship to clinical medicine, yet claim the consideration and emoluments due to the skilled and experienced journeyman."

Now hospital training is most essential to a true knowledge of disease, and continual observation at the bedside, with good tutorial instruction, is a more important factor in the education of a medical man than the best and most complete knowledge of all the bacterial forms. How to properly examine a patient, how to question him so as to get all the salient points of his illness, how to observe his deviation from the normal in posture, color, expression and conduct—how to examine all his excretions and to tell how they differ from those in health, observe the character of the tongue and pulse, the breathing, etc., are essentials. After this the blood may be examined and other methods used to confirm or disprove our previously conceived idea of what the patient is suffering from. All this is much more important than a repetition of a series of experiments in laboratories and the culture of innumerable bacilli, common and rare. Mind you, I do not wish to disparage laboratory teaching—it is essential—but we can have too much of a good thing, and laboratories nowadays take up too much of the student's time in the latter years of his curriculum. The ordinary student should have a good working knowledge of laboratory methods, and this should be obtained chiefly during his first two years, but the refinements, if insisted on, will be acquired at the expense of some more useful and practical information, for the average student can only hold so much knowledge—it is hopeless to attempt to put a quart measure into a pint pot.

I would suggest that among students only a selected few be made use of for research work, and that the average man be not freighted with too much laboratory ballast, but that room be left for other kinds of cargo, the use of which may prove of great value in the voyage through life. Post-graduate medical research work should also be encouraged by every university, and opportunities given to every suitable person to continue lines of work for which he is most fitted.

In this connection I should like to read you an extract from an address delivered before the Medical Society at Oxford, in 1895, by the late Professor Sir George Humphry, of Cambridge:—"There is too great a mass of facts heaped on the memory and too little reflection on them, too great a straining after the practical and too little aspiration for the principles upon which good practice must be based. . . . The sciences of physiology and histology have become, and those of pathology and anatomy are becoming, more separated from medi-

cine, delegated to special teachers and special examiners—doubtless to the advantage and width of scope of those sciences and to the greater knowledge of them, but I fear there is hereby engendered a tendency to take the student too far afield. . . . It is apt to lead too much to meandering in altitudes, too little to straight going upon *terra firma*; too much to pride and obtrusiveness of supposed higher knowledge, too little to reasoning and too little to power of reasoning upon simple data, and too little to that sort of reasoning which constitutes the basis of 'Common Sense.' The scientific and the practical, in short, become too much separated; what is needed is a greater regard to that connection between the two which should be maintained through the whole period of study."

SPECIALISM.

Another tendency in medical education is specialism. In some universities they are advocating allowing men to graduate in special lines, such as ophthalmology, dermatology, medicine, surgery, gynecology, etc. This seems to me to be most pernicious, tending to develop much narrowness and also to exaggerate the importance of certain specialties, and the public will suffer accordingly. The "malade imaginaire" will always find he has something not exactly right, but what depends on the specialist he consults. Nowadays even the most advanced are agreed on the importance of acquiring the rudiments and learning the principles of medicine and surgery, and to practice them before commencing the study of any specialty. I do not say that the study of specialties such as otology, ophthalmology, gynecology and even dermatology should be neglected—on the contrary, we should study them all—but in their relation to and bearing on general medicine and surgery we should have a good working knowledge of each, but an excess of time should not be devoted to any one. A year or two of hospital work, followed by some experience in general practice, should be managed by anyone who wishes to become a broad-minded specialist. In this way he gets a wider grasp of medicine and is less liable afterwards, when he gravitates to a specialty, to run in such narrow grooves.

It is the fashion now for men to go into medicine purposely to become specialists, not that they have any particular aptitude or leaning toward their special choice, but because the opportunities for making money are greater and their time will be their own—they only learn enough medicine and surgery to qualify for a degree. Such a training, although it may be a financial success, will tend to bring the practice of medicine down to a mere trade, and the higher and nobler instincts which ought to stimulate a professional man will be no more seen amongst us.

QUACKERY.

I had intended touching at length on the various quackeries which are now so rampant among the most civilized nations and amongst their most cultivated classes, but time warns me I must be brief. I refer to such things as Christian Science, mental science, spiritualism, vitapathy, osteopathy and such like—but perhaps they have their uses in this rapid and restless age—they probably are a vent for people who would otherwise have to be confined in asylums at a great expense to the public. Could any individual write such a lot of stuff as the following without there being a suspicion of insanity in the case? “If I believe in the power of disease, my thought atmosphere could not heal a patient. Disease has no power of its own but only as much power as our ignorance concedes to it. Disease is ignorance, intelligence is cure. Disease is but a negation of the ubiquitous life principle. This life principle has taken entire possession of me and my thoughts, I live in it. I am it” Such stuff as this, *ad infinitum*, is read and believed in by thousands—believed in, but not understood. Education will not abolish belief in quacks and quackery. I wrote an article on quackery many years ago, which was published in the *Popular Science Monthly*, and I closed with the following quotation, which seems appropriate on the present occasion: “The final though distant extinction of quackery is to be hoped for. It forms a fragment of that final triumph of reason and virtue which is the secret consolation of every philanthropist.”

It is partly due to the profession itself that quackery flourishes. So many men who are unfit for the profession enter it and look on it as a business to make money, honestly perhaps, if possible, but to make it even if the credulity of the public is drawn on. Many of the doctors who write to papers like the *Alkaloidal Clinic*, the *Medical Short-cut* and others of such a character, have a most misty idea of their profession and apparently are ignorant enough to deceive themselves as well as the public. I fancy they practice all the pathys,—one man from Texas asks the editor if he has anything that is a “dead shot” for eczema, another asks what is the most up-to-date scientific eaper for goitre, and so on; one specimen of sputum from an old lady, which was sent to the editor for examination, contained tubercle bacilli, diplococci, pneumo-bacilli, saprophytes and pus cells. Another patient, from the writer’s description of her case, is diagnosed as having an extra vulnerability and an extra colony of microbes in her mouth. Such is the literature many feed upon, always looking for tips and sure cures, never accurately diagnosing the disease and always

changing treatment. Is it any wonder that quacks flourish? It is a curious thing, however, that our medical laws seem unable to cope with quacks, but, if a man who has had a regular training has not obtained his license, he is immediately hauled up and fined.

THE KING'S ILLNESS.

I fear I have trespassed on your time long enough, and I must bring this rather disconnected address to a close. I cannot, however, close without referring to the comparatively recent serious illness of our beloved Sovereign. The result in his case is most satisfactory, and is a triumph for modern surgery: let all credit be given to the able and wise physicians and surgeons who directed his case. The rewards of the medical profession are not many, nor are they of the highest grade, but in the late award of honors medical men were not forgotten, and those in closest attendance on the King received their share. The responsibilities attaching to the medical attendants were more than usual, and very much depended on their advice as to the most proper and safest procedure. The proper path was chosen, and for the time they are praised beyond measure, but unfortunately medical favors are soon forgotten.

"Three faces the Physician hath;
First as an Angel he,
When he is sought; next when he helps
A God he seems to be;
And best of all, when he hath made
The Sick, diseased well
And asks his guerdon, then he seems
An oughly Fiend of Hell."

The future of the medical man, however, is bright, and his position in the State is advancing as the necessity for employing him for the solution of all hygienic and sanitary problems becomes evident. In the wars of the future the winning of battles will be of no avail or impossible without an efficient medical service and no government will be complete without a department of public health presided over by medical men.

To enable our profession to obtain the respect and consideration of the public, we must stand shoulder to shoulder, and be true to ourselves. We must act so that no one can point the finger of scorn at us. We must not coquette with anything that has even the appearance of quackery. We must work for the love of our profession, and not for the mere object of getting money. We must neglect no opportunities of meeting together and so increasing our knowledge and stimulating our desire for knowledge. Above all, we must see that in the future none but men of the highest character, and who have

had a proper preliminary training be allowed to enter into the profession of medicine.

OBITUARY.

Since we last met we have lost several valuable members: two especially will be missed, namely, Wyatt G. Johnston, of Montreal, and Wm. S. Muir, of Truro. Dr. Johnston, one might say, died on the battlefield, for he succumbed to sepsis contracted in his ordinary work. He had just been appointed the Professor of Hygiene and State Medicine in McGill University, and a long and successful occupation of the chair was hoped for. He had done much original work already as assistant professor, and in pathology he had made a world-wide reputation. Wyatt Johnston was in some respects a genius—he had the modesty, great originality and capacity for work, which distinguishes such men. He was, if anything, too fertile in ideas, and had so many ventures on the sea of experiment that some of them necessarily came to grief: not because they were Utopian or impracticable, but because there was not time to work them out. At the Montreal General Hospital he had the confidence and love of his colleagues and his opinion was final on a pathological question. As an expert in the coroner's court he was looked upon as a safe authority and his evidence was never prejudicial and partisan, but was, as scientific evidence ought to be, impartial. He much impressed judges and lawyers with his honesty, sincerity and accurateness. We only occasionally find such men, but in their short lives they often accomplish more than many others who have exceeded the prescribed threescore years and ten.

William Scott Muir has also gone from amongst us. His cheerful countenance and portly form we miss here to-day: he was one who had for many years past regularly attended these meetings, and by his genial disposition and practical common sense endeared himself to all with whom he came in contact. He was a man of affairs and took the greatest interest in everything pertaining to the advancement of the profession: he was always wise in counsel, and in scientific discussion had the faculty of going to the root of the matter and stripping the subject of unnecessary accessories. He was an able practitioner and much beloved by his patients. He gained their confidence by his transparent honesty, and was always welcomed by his colleagues wherever he went and always found friends. He was a distinct personality and one the medical profession can ill afford to lose—his works will follow him.

Dr. Brunelle, surgeon of the Hotel Dieu Hospital, has also been suddenly removed from amongst us. He was an able surgeon and teacher, and will be much missed by his colleagues, by whom he was held in the highest regard.

CHAUVINISM* IN MEDICINE.

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A rare and precious gift is the Art of Detachment, by which a man may so separate himself from life-long environment as to take a panoramic view of the conditions under which he has lived and moved, and that frees him from Plato's den long enough to see the realities as they really are, the shadows as they appear. Could a physician attain to such an art he would find in the state of his profession a theme calling as well for the exercise of the highest faculties of description and imagination as for the deepest philosophic insight. With wisdom of the den only and of my fellow-prisoners, such a task is beyond my ambition and my powers, but to emphasize only the subject that I wish to bring home to your hearts I must first refer to certain distinctive features of our profession:

I. FOUR GREAT FEATURES OF THE GUILD.

Its noble ancestry.—Like everything else that is good and durable in this world, modern medicine is a product of the Greek intellect, and had its origin when that wonderful people created positive or rational science, and no small credit is due to the physicians who, as Professor Gomperz remarks (in his brilliant chapter *On the Age of Enlightenment*, "Greek Thinkers," Vol. 1), very early brought to bear the spirit of criticism on the arbitrary and superstitious views of the phenomena of life. If science was ever to acquire "steady and accurate habits instead of losing itself in a maze of phantasies, it must be by quiet methodical research." "It is the undying glory of the school of Cos that it introduced this innovation into the domain of its Art, and thus exercised the most beneficial influence on the whole intellectual life of mankind. Fiction to the right! Reality to the left! was the battle cry of this school in the war it was the first to wage against the excesses and defects of the nature philosophy" (Gomperz). The critical sense and skeptical attitude of the Hippocratic school laid the foundations of modern medicine on broad lines, and we owe to it: first, the emancipation of medicine from the shackles of priestcraft and of caste; secondly, the conception

* Definition: A narrow, illiberal spirit in matters national, provincial, collegiate or personal.

of medicine as an art based on accurate observation, and as a science, an integral part of the science of man and of nature; thirdly, the high moral ideals, expressed in that most "memorable of human documents" (Gomperz), the Hippocratic oath; and fourthly, the conception and realization of medicine as the profession of a cultivated gentleman.* No other profession can boast of the same unbroken continuity of methods and of ideals. We may indeed be justly proud of our apostolic succession. Schools and systems have flourished and gone, schools which have swayed for generations the thought of our guild, and systems that have died before their founders; the philosophies of one age have become the absurdities of the next, and the foolishness of yesterday has become the wisdom of tomorrow; through long ages which were slowly learning what we are hurrying to forget; amid all the changes and chances of twenty-five centuries, the profession has never lacked men who have lived up to these Greek ideals. They were those of Galen and of Areteus, of the men of the Alexandrian and Byzantine schools, of the best of the Arabians, of the men of the Renaissance, and they are ours to-day.

A second distinctive feature is the remarkable solidarity. Of no other profession is the word universal applicable in the same sense. The celebrated phrase used of the Catholic church is in truth much more appropriate when applied to medicine. It is not the prevalence of disease or the existence everywhere of special groups of men to treat it that betokens this solidarity, but it is the identity throughout the civilized world of our ambitions, our methods and our work. To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions. To carefully observe the phenomena of life in all its phases, normal and perverted, to make perfect that most difficult of all arts, the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering and to heal the sick—this is our work. The profession in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims and ways are identical with his own.

Thirdly, its progressive character. Based on science, medicine

* Nowhere in literature do we have such a charming picture illustrating the position of a cultivated physician in society as that given in Plato's *Dialogues* of Eryximachus, himself the son of a physician, Acumenus. In that most brilliant age the physician was the companion and friend, and in intellectual intercourse the peer of its choicest spirits.

has followed and partaken of its fortunes, so that in the great awakening which has made the nineteenth memorable among centuries, the profession received a quickening impulse more powerful than at any period in its history. With the sole exception of the mechanical sciences, no other department of human knowledge has undergone such a profound change—a change so profound that we who have grown up in it have but slight appreciation of its momentous character. And not only in what has been actually accomplished in unravelling the causes of disease, in perfecting methods of prevention and in wholesale relief of suffering, but also in the unloading of old formulæ and in the substitution of the scientific spirit of free enquiry for cast-iron dogmas we see a promise of still greater achievement and of a more glorious future.

And lastly, the profession of medicine is distinguished from all others by its singular beneficence. It alone does the work of charity in a Jovian or God-like way, dispensing with free hand truly Promethean gifts. There are those who listen to me who have seen three of the most benign endowments granted to the race since the great Titan stole fire from the heavens. Search the Scriptures of human achievement and you cannot parallel in beneficence anesthesia, sanitation, with all that it includes, and asepsis—a short half-century's contribution towards the practical solution of the problems of human suffering, regarded as eternal and insoluble. We form almost a monopoly or trust in this business. Nobody else comes into active competition with us, certainly not the other learned professions, which continue along the old lines. Every few years sees some new conquest, so that we have ceased to wonder. The work of half a-dozen men, headed by Lavern, has made waste places of the earth habitable and the wilderness to blossom as the rose. The work of Walter Reed and his associates will probably make yellow fever as scarce in the Spanish main as is typhus fever with us. There seems to be no limit to the possibilities of scientific medicine, and while philanthropists are turning to it as the hope of humanity, philosophers see, as in some far-off vision, a science from which may come in the prophetic words of the Son of Sirach, "Peace over all the earth."

Never has the outlook for the profession been brighter. Everywhere the physician is better trained and better equipped than he was twenty-five years ago. Disease is understood more thoroughly, studied more carefully and treated more skilfully. The average sum of human suffering has been reduced in a way to make the angels rejoice. Diseases familiar to our fathers and grandfathers have disappeared, the death rate from others is falling to the vanishing point, and public

health measures have lessened the sorrows and brightened the lives of millions. The vagaries and whims, lay and medical, may neither have diminished in number nor lessened in their capacity to distress the faint-hearted who do not appreciate that to the end of time people must imagine vain things, but in the light of the colossal advances of the past fifty years, what are they but flies on the wheels of progress?

So vast, however, and composite has the profession become that the physiological separation, in which dependent parts are fitly joined together, tends to become pathological, and while some parts suffer necrosis and degeneration, others, passing the normal limits, become disfiguring and dangerous outgrowths on the body medical. The dangers and evils which threaten harmony among the units are internal, not external. And yet, more than in any other profession, owing to the circumstances of which I have spoken, is complete organic unity possible. Of the many hindrances in the way, time would fail me to speak, but there is one aspect of the question to which I would direct your attention in the hope that I may speak a word in season.

Perhaps no sin so easily besets us as a sense of self-satisfied superiority to others. It cannot always be called pride, that master sin, but more often it is an attitude of mind which either leads to bigotry and prejudice or to such a vaunting conceit in the truth of one's own beliefs and positions, that there is no room for tolerance of ways and thoughts which are not as ours are. To avoid some smirch of this vice is beyond human power: we are all dipped in it, some lightly, others deeply grained. Partaking of the nature of uncharitableness, it has not the intensity of envy, hatred and malice, but it shades off in fine degrees from them. It may be a perfectly harmless, even an amusing trait in both nations and individuals, and so well was it depicted by MM. Cogniard in their play, *La Cocarde Tricolore*, 1831, one character in which was the young recruit Chauvin, that the name Chauvinism has become a by-word, expressing a bigoted, intolerant spirit.* The significance of the word has been widened, and it may be used as a synonym for a certain type of nationalism, for a narrow provincialism or for a petty parochialism. It does not express the blatant loudness of Jingoism, which is of the tongue, while Chauvinism is a condition of mind, an aspect of character much more subtle and dangerous. The one is more apt to be found in the educated classes, while the other is pandemic in the fool multitude—that numerous piece of monstrosity which, taken asunder, seem men reasonable creatures of God, but confused together, make but

* It is by no means easy to see, after reading the play, how the name could have arisen. The nationalism displayed is of a most harmless type. In the sense here employed it has been used by standard writers, as for example, Huxley.

one great beast, and a monstrosity more prodigious than Hydra" (*Religio Medici*). Wherever found, and in whatever form, Chauvinism is a great enemy of progress and of peace and concord among the units. I have not the time, nor, had I, have I the ability to portray this failing in all its varieties; I can but touch upon some of its aspects, national, provincial and parochial.

II. NATIONALISM IN MEDICINE.

Nationalism has been the great curse of humanity. In no other shape has the Demon of Ignorance assumed more hideous proportions; to no other obsession do we yield ourselves more readily. For whom do the Hosannas ring higher than for the successful butcher of tens of thousands of poor fellows who have been made to pass through the fire to this Moloch of nationalism? A vice of the blood, of the plasma rather, it runs riot in the race, and rages to-day as of yore in spite of the precepts of religion and the practice of democracy. Nor is there any hope of change; the pulpit is dumb, the press fans the flames, literature panders to it and the people love to have it so. Not that all aspects of nationalism are bad. Breathes there a man with soul so dead that it does not glow at the thought of what the men of his blood have done and suffered to make his country what it is? There is room, plenty of room, for proper pride of land and birth. What I inveigh against is a cursed spirit of intolerance, conceived in distrust and bred in ignorance, that makes the mental attitude perennially antagonistic, even bitterly antagonistic to everything foreign, that subordinates everywhere the race to the nation, forgetting the higher claims of human brotherhood.

While medicine is everywhere tinctured with national characteristics, the wider aspects of the profession, to which I have alluded—our common lineage and the community of interests—should always save us from the more vicious aspects of this sin, if it cannot prevent it altogether. And yet I cannot say, as I wish I could, that we are wholly free from this form of Chauvinism. Can we say, as English, French, German or American physicians, that our culture is always cosmopolitan, not national, that our attitude of mind is always as frankly open and friendly to the French as to the English, to the American as to the German, that we are free at all times and in all places from prejudice, at all times free from a self-satisfied feeling of superiority the one over the other? There has been of late years a closer union of the profession of the different countries through the International Congress and through the international meetings of the special societies; but this is not enough, and the hostile attitude has by no means disappeared.

Ignorance is at the root. When a man talks slightly of the position and work of his profession in any country, or when a teacher tells you that he fails to find inspiration in the work of his foreign colleagues, in the words of the Arabian proverb—he is a fool, shun him! Full knowledge, which alone disperses the mists of ignorance, can only be obtained by travel or by a thorough acquaintance with the literature of the different countries. Personal, first-hand intercourse with men of different lands, when the mind is young and plastic, is the best vaccination against the disease. The man who has sat at the feet of Virchow, or has listened to Traube, or Helmetz, or Cohnheim, can never look with unfriendly eyes at German medicine or German methods. Who ever met with an English or American pupil of Louis or of Charcot, who did not love French medicine, if not for its own sake, for the reverence he bore his great master? Let our young men, particularly those who aspire to teaching positions, go abroad. They can find at home laboratories and hospitals as well equipped as any in the world, but they may find abroad more than they knew they sought—widened sympathies, heightened ideals and something perhaps of a *Welt-cultur* which will remain through life as the best protection against the vice of nationalism.

Next to a personal knowledge of men, a knowledge of the literature of the profession of different countries will do much to counteract intolerance and Chauvinism. The great works in the department of medicine in which a man is interested, are not so many that he cannot know their contents, though they be in three or four languages. Think of the impetus French medicine gave to the profession in the first half of the last century, of the debt we all owe to German science in the latter half, and of the lesson of the practical application by the English of sanitation and asepsis! It is one of our chief glories and one of the unique features of the profession that no matter where the work is done in the world, if of any value it is quickly utilized. Nothing has contributed more to the denationalization of the profession of this continent than, on the one hand, the ready reception of the good men from the old countries who have cast in their lot with us, and, on the other, the influence of our young men who have returned from Europe with sympathies as wide as the profession itself. There is abroad among us a proper spirit of eclecticism, a willingness to take the good wherever found, that augurs well for the future. It helps a man immensely to be a bit of a hero-worshipper, and the stories of the lives of the masters of medicine do much to stimulate our ambition and rouse our sympathies. If the life and work of such men as Bichat and Laennec will not stir the blood of a young man and make him feel proud of France and of French-

men, he must be a dull and muddy mettled rascal. In reading the life of Hunter, of Jenner, who thinks of the nationality which is merged and lost in our interest in the man and in his work? In the halcyon days of the Renaissance there was no nationalism in medicine, but a fine catholic spirit made great leaders like Vesalius, Eustachius, Stenson and others at home in every country in Europe. While this is impossible to-day, a great teacher of any country may have a world-wide audience in our journal literature, which has done so much to make medicine cosmopolitan.

III. PROVINCIALISM IN MEDICINE.

We may congratulate ourselves that the worst aspects of nationalism in medicine are disappearing before the broader culture and the more intimate knowledge brought by ever-increasing intercourse, yet conditions have favored in English-speaking countries the growth of a very unpleasant subvariety, which may be called provincialism or sectionalism. In one sense the profession of this continent is singularly homogeneous. A young man may be prepared for his medical course in Louisiana and enter McGill College, or he may enter Dalhousie College, Halifax, from the State of Oregon, and, in either case, he will not feel strange or among strangers so soon as he has got accustomed to his environment. In collegiate life there is a frequent interchange of teachers and professors between all parts of the country. To better his brains the scholar goes freely where he wishes—to Harvard, McGill, Yale or Johns Hopkins; there are no restrictions. The various medical societies of the two countries are, without exception, open to the members of the profession at large. The President of the Association of American Physicians this year (Dr. James Stewart) is a resident of this city, which gave also last year, I believe, presidents to two of the special societies. The chief journals are supported by men of all sections. The text-books and manuals are everywhere in common; there is, in fact, a remarkable homogeneity in the English-speaking profession, not only on this continent but throughout the world. Naturally, in widely-scattered communities, sectionalism—a feeling or conviction that the part is greater than the whole—does exist, but it is diminishing, and one great function of the national associations is to foster a spirit of harmony and brotherhood among the scattered units of these broad lands. But we suffer sadly from a provincialism which has gradually enthralled us, and which sprang originally from an attempt to relieve conditions insupportable in themselves. I have praised the unity of the profession of this continent, in so many respects remarkable, and yet in another respect it is the most heterogeneous ever

known Democracy in full circle touches tyranny, and, as Milton remarks, the greatest proclaimers of liberty may become its greatest engrossers (or enslavers). The tyranny of labor unions, of trusts, and of an irresponsible press may bear as heavily on the people as imperialism in its worst form. And, strange irony of fate! the democracy of Provincial and State Boards has imposed in a few years a yoke more grievous than that which afflicts our brethren in Great Britain, which took generations to forge.

The delightful freedom of intercourse of which I spoke, while wide and generous, is limited to intellectual and social life, and, on the practical side, not only are genial and courteous facilities lacking, but the bars of a rigid provincialism are put up, fencing each state as with a Chinese wall. In the Dominion of Canada there are eight portal entries to the profession, in the United States almost as many as there are states, in the United Kingdom nineteen, I believe, but in the latter the license of any one of these bodies entitles a man to registration anywhere in the kingdom. Democracy in full circle has reached on this hemisphere a much worse condition than that in which the conservatism of many generations has entangled the profession of Great Britain. Upon the origin and growth of Provincial and State Boards I do not propose to touch. The ideal has been reached, so far as organization is concerned, when the profession elects its own parliament, to which is committed the control of all matters relating to the license. The recognition, in some form, of this democratic principle, has been one of the great factors in elevating the standard of medical education, and in a majority of the States of the Union it has secured a minimum period of four years of study, and a state examination for license to practice. All this is as it should be. But it is high time the profession realized the anomaly of eight boards in the Dominion and some scores in the United States. One can condone the iniquity in the latter country more readily than in this, in which the boards have existed for a longer period, and where there has been a greater uniformity in the medical curriculum. After all these years that a young man, a graduate of Toronto and a registered practitioner in Ontario, cannot practice in the Province of Quebec, his own country, without submitting to vexatious penalties of mind and pocket, or that a graduate from Montreal and a registered practitioner of this province cannot go to Manitoba, his own country again, and take up his life's work without additional payments and penalties is, I maintain, an outrage; it is provincialism run riot. That this pestiferous condition should exist through the various provinces of this Dominion and so many States of the Union illustrates what I have said

of the tyranny of democracy, and how great enslavers of liberty its chief proclaimers may be.

That the cure of this vicious state has to be sought in Dominion bills and national examining boards, indicates into what debasing depths of narrow provincialism we have sunk. The solution seems so simple, particularly in this country, with its uniformity of methods of teaching and length of curriculum. A generous spirit that will give to local laws a liberal interpretation, that limits its hostility to ignorance and viciousness, that has regard as much or more for the good of the guild as a whole as for the profession of any province—could such a spirit brood over the waters, the raging waves of discord would soon be stilled. With the attitude of mind of the general practitioner in each province rests the solution of the problem. Approach it in a friendly and gracious spirit and the difficulties which seem so hard will melt away. Approach it in a Chauvinistic mood, fully convinced that the superior and unparalleled conditions of your province will be jeopardized by reciprocity or by federal legislation, and the present antiquated and disgraceful system must await for its removal the awakening of a younger and more intelligent generation.

It would ill become me to pass from this subject—familiar to me from my student days from the interest taken in it by that far-sighted and noble-minded man, Dr. Palmer Howard—it would ill become me, I say, not to pay a tribute of words to Dr. Roddick for the zeal and persistence with which he has labored to promote union in the compound, comminuted fracture of the profession of this Dominion. My feeling on the subject of international, inter-colonial and inter-provincial registration is this—a man who presents evidence of proper training, who is a registered practitioner in his own country and who brings credentials of good standing at the time of departure, should be welcomed as a brother, treated as such in any country, and registered on payment of the usual fee. The ungenerous treatment of English physicians in Switzerland, France and Italy, and the chaotic state of internecine warfare existing on this continent, indicates how far a miserable Chauvinism can corrupt the great and gracious ways which should characterize a liberal profession.

Though not germane to the subject, may I be allowed to refer to one other point in connection with the State Boards—a misunderstanding, I believe, of their functions. The profession asks that the man applying for admission to its ranks shall be of good character and fit to practice the science and art of medicine. The latter is easily ascertained if practical men have the place and the equipment for practical examinations.

Many of the boards have not kept pace with the times, and the questions set too often show a lack of appreciation of modern methods. This has, perhaps, been unavoidable since, in the appointment of examiners, it has not always been possible to select experts. The truth is, that however well organized and equipped, the state boards cannot examine properly in the scientific branches, nor is there need to burden the students with additional examinations in anatomy, physiology and chemistry. The Provincial and State Boards have done a great work for medical education on this continent, which they would crown and extend by doing away at once with all theoretical examinations, and limiting the tests for the license to a rigid practical examination in medicine, surgery and midwifery, in which all minor subjects could be included.

IV. PAROCHIALISM IN MEDICINE.

Of the parochial and more personal aspects of Chauvinism I hesitate to speak; all of us, unwittingly as a rule, illustrate its varieties. The conditions of life which round us and bound us, whether in town or country, in college or institution, give to the most liberal a smack of parochialism, just as surely as we catch the tie of tongue of the land in which we live. The dictum put into the mouth of Ulysses, "I am a part of all that I have met," expresses the truth of the influence upon us of the social environment, but it is not the whole truth, since the size of the parish, representing the number of points of contact, is of less moment than the mental fibre of the man. Who has not known lives of the greatest freshness and nobility hampered at every turn and bound in chains the most commonplace and sordid, lives which illustrate the liberty and freedom enjoyed by minds innocent and quiet, in spite of stone walls and iron bars? On the other hand, scan the history of progress in the profession, and men the most illiberal and narrow, reeking of the most pernicious type of Chauvinism, have been among the teachers and practitioners of the large cities and great medical centres; so true is it, that the mind is its own place and in itself can make a man independent of his environment.

There are shades and varieties which are by no means offensive. Many excellent features in a man's character may partake of its nature. What, for example, is more proper than the pride which we feel in our teachers, in the university from which we have graduated, in the hospital at which we have been trained? He is a "poor sort" who is free from such feelings, which only manifest a proper loyalty. But it easily degenerates into a base intolerance which looks with disdain

on men of other schools and other ways. The pride, too, may be in inverse proportion to the justness of the claims. There is plenty of room for honest and friendly rivalry between schools and hospitals, only a blind Chauvinism puts a man into a hostile and intolerant attitude of mind at the mention of a name. Alumni and friends should remember that indiscriminate praise of institutions or men is apt to rouse the frame of mind illustrated by the ignorant Athenian who, so weary of hearing Aristides always called the Just, very gladly took up the oyster shell for his ostracism, and even asked Aristides himself, whom he did not know, to mark it.

A common type of collegiate Chauvinism is manifest in the narrow spirit too often displayed in filling appointments. The professoriate of the profession, the most mobile column of its great army, should be recruited with the most zealous regard to fitness, irrespective of local conditions that are apt to influence the selection. Inbreeding is as hurtful to colleges as to cattle. The interchange of men, particularly of young men, is most stimulating, and the complete emancipation of the chairs which has taken place in most of our universities should extend to the medical schools. Nothing, perhaps, has done more to place German medicine in the forefront to-day than a peripatetic professoriate, owing allegiance only to the profession at large, regardless of civic, sometimes, indeed, of national, limitations and restrictions. We acknowledge the principle in the case of the scientific chairs, and with increasing frequency act upon it, but an attempt to extend it to other chairs may be the signal for display of rank parochialism.

Another unpleasant manifestation of collegiate Chauvinism is the outcome, perhaps, of the very keen competition which at present exists in scientific circles. Instead of a generous appreciation of the work done in other places, there is a settled hostility and a narrowness of judgment but little in keeping with the true spirit of science. Worse still is the "lock and key" laboratory in which suspicion and distrust reign, and everyone is jealous and fearful lest the other should know of or find out about his work. Thank God! this base and bastard spirit is not much seen, but it is about, and I would earnestly entreat any young man who unwittingly finds himself in a laboratory pervaded with this atmosphere, to get out ere the contagion sinks into his soul.

Chauvinism in the unit, in the general practitioner, is of much more interest and importance. It is amusing to read and hear of the passing of the family physician. There never was a time in our history in which he was so much in evidence, in which he was so prosperous in which his prospects were so good or his power in the community more potent. The public

has even begun to get sentimental over him! He still does the work; the consultants and the specialists do the talking and the writing—and take the fees! By the work, I mean that great mass of routine practice which brings the doctor into every household in the land and makes him, not alone the adviser, but the valued friend. He is the standard by which we are measured. What he is we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well-trained sensible family doctor is one of the most valuable assets in a community, worth to-day, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild. I can only refer here to certain aspects in which he is apt to show a narrow Chauvinism hurtful to himself and to us.

In no single relation of life does the general practitioner show a more illiberal spirit than in the treatment of himself. I do not refer so much to careless habits of living, to lack of routine in work, or to failure to pay due attention to the business side of the profession—sins which so easily beset him—but I would speak of his failure to realize, first, the need of a life-long progressive personal training, and secondly, the danger lest in the stress of practice he sacrifice that most precious of all possessions, his mental independence. Medicine is a most difficult art to acquire. All the college can do is to teach the student principles, based on facts in science, and give him good methods of work. These simply start him in the right direction, they do not make him a good practitioner—that is his own affair. To master the art requires sustained effort, like the bird's flight, which depends on the incessant action of the wings, but this sustained effort is so hard that many give up the struggle in despair. And yet it is only by persistent intelligent study of disease upon a methodical plan of examination that a man gradually learns to correlate his daily lessons with the facts of his previous experience and with that of his fellows, and so acquires clinical wisdom. Nowadays it is really not a hard matter for a well-trained man to keep abreast of the best work of the day. He need not be very scientific so long as he has a true appreciation of the dependence of his Art on Science, for, in a way, it is true that a good doctor may have practice and no theory, art and no science. To keep up a familiarity with the use of instruments of precision is an all-important help in his art, and I am profoundly convinced that as much space should be given to the clinical laboratory as to the dispensary. One great difficulty is that while waiting for the years to bring the inevitable yoke, a young fellow gets stale and loses that practised familiarity with technique which gives

confidence. I wish the older practitioners would remember how important it is to encourage and utilize the young men who settle near them. In every large practice there are a dozen or more cases requiring skilled aid in the diagnosis, and this the general practitioner can have at hand. It is his duty, and failing to do so he acts in a most illiberal and unjust way to himself and to the profession at large. Not only may the older man, if he has soft arteries in his grey cortex, pick up many points from the young fellow, but there is much clinical wisdom afloat in each parish which is now wasted or dies with the old doctor, because he and the young men have never been on friendly terms.

In the fight which we have to wage incessantly against ignorance and quackery among the masses and follies of all sorts among the classes, *diagnosis*, not *drugging*, is our chief weapon of offense. Lack of systematic personal training in the methods of the recognition of disease leads to the misapplication of remedies, to long courses of treatment when treatment is useless, and so directly to that lack of confidence in our methods which is apt to place us in the eyes of the public on a level with empirics and quacks.

Few men live lives of more devoted self-sacrifice than the family physician, but he may become so completely absorbed in work that leisure is unknown: he has scarce time to eat or to sleep, and, as Dr. Drummond remarks, in one of his poems, "He's the only man, I know mem, don't get no holiday." There is danger in this treadmill life lest he lose more than health and time and rest—his intellectual independence. More than most men he feels the tragedy of isolation—that inner isolation, so well expressed in Mathew Arnold's line—"We mortal millions live alone." Even in populous districts the practice of medicine is a lonely road which winds up-hill all the way, and a man may easily go astray and never reach the delectable mountains unless he early finds those shepherd guides of which Bunyan tells, Knowledge, Experience, Watchful and Sincere. The circumstances of life mould him into a masterful, self-confident, self-centred man, whose worst faults often partake of his best qualities. The peril is that should he cease to think for himself he becomes a mere automaton, doing a penny-in-the-slot business which places him on a level with the chemist's clerk who can hand out specifics for every ill, from the "pip" to the pox. The salt of life for him is a judicious skepticism, not the coarse, crude form, but the sober sense of honest doubt expressed in the maxim of the sly old Sicilian Epicharmus, "Be sober and distrustful: these are the sinews of the understanding." A great advantage, too, of a skeptical attitude of mind is, as Green the historian remarks, "One is never very

surprised or angry to find that one's opponents are in the right." It may keep him from self-deception and from falling into that medical slumber into which so many drop, deep as the theological slumber so lashed by Erasmus, in which a man may write letters, debauch himself, get drunk, and even make money—a slumber so deep at times that no torpedo-touch can waken him.

It may keep the practitioner out of the clutches of the arch enemy of his professional independence—the pernicious literature of our camp-followers, a literature increasing in bulk, in meretricious attractiveness and in impudent audacity. To modern pharmacy we owe much and to pharmaceutical methods we shall owe much more in the future, but the profession has no more insidious foe than the large borderland pharmaceutical houses. No longer an honored messmate, pharmacy in this form threatens to become a huge parasite, eating the vitals of the body medical. We all know only too well the bastard literature which floods the mail, every page of which illustrates the truth of the axiom, the greater the ignorance the greater the dogmatism. Much of it is advertisements of nostrums foisted on the profession by men who trade on the innocent credulity of the regular physician, quite as much as any quack preys on the gullible public. Even the most respectable houses are not free from this sin of arrogance and ignorant dogmatism in their literature. A still more dangerous enemy to the mental virility of the general practitioner is the "drummer" of the drug house. While many of them are good, sensible fellows, there are others voluble as Cassio, impudent as Autolycus and senseless as Caliban, who will tell you glibly of the virtues of extract of the coccygeal gland in promoting pineal metabolism, and are ready to express the most emphatic opinions on questions about which the greatest masters of our art are doubtful. No class of men with which we have to deal illustrate more fully that greatest of ignorance—the ignorance which is the conceit that a man knows what he does not know; but the enthrallment of the practitioner by the manufacturing chemist and the revival of a pseudo-scientific poly-pharmacy, are too large questions to be dealt with at the end of an address.

But there is a still greater sacrifice which many of us make, heedlessly and thoughtlessly forgetting that "Man does not live by bread alone." One cannot practice medicine alone and practice it early and late, as so many of us have to do, and hope to escape the malign influences of a routine life. The incessant concentration of thought upon one subject, however interesting, tethers a man's mind in a narrow field. The practitioner needs culture as well as learning. The earliest picture

we have in literature of a scientific physician, in our sense of the term, is as a cultured Greek gentleman; and I care not whether the young man labors among the beautiful homes on Sherbrooke Street or in the slums of Caughnawaga, or in some sparsely settled country district, he cannot afford to have learning only. In no profession does culture count for so much as in medicine, and no man needs it more than the general practitioner, working among all sorts and conditions of men, many of whom are influenced quite as much by his general ability, which they can appreciate, as by his learning of what they have no measure. The day has passed for the "practiser of physic" to be like Mr. Robert Levet, Dr. Johnson's friend, "Obscurely wise and coarsely kind." The wider and free the man's general education the better practitioner is he likely to be, particularly among the higher classes, to whom the reassurance and sympathy of a cultivated gentleman of the type of Eryximachus may mean much more than pills and potions. But what of the men of the type of Mr. Robert Levet or "Ole Docteur Fiset," whose virtues walk a narrow round, the men who do the hard general practices in the poorer districts of the large cities, in the factory towns and in the widely scattered, rough agricultural regions—what, I hear you say, has culture to do with him? Everything! It is the bichloride which may prevent the infection and may keep a man sweet and whole amid the most debasing surroundings. Of very little direct value to him in his practice—though the poor have a pretty keen appreciation of a gentleman—it may serve to prevent the degeneration so apt to overtake the over-worked practitioner, whose nature is only too prone to be subdued like the dyer's hand to what it works in. If a man does not sell his soul, if he does not part with the birthright of independence for a mess of pottage for the Ishmaelites who harass our borders with their clubs and oppress us with their exactions, if he can only keep free, the conditions of practice are nowhere incompatible with St. Paul's noble Christian or Aristotle's true gentleman.*

Whether a man will treat his professional brethren in a gentlemanly way or in a narrow, illiberal spirit is partly a matter of temperament, partly a matter of training. If we had only to deal with one another the difficulties would be slight, but it must be confessed that the practice of medicine among our fellow creatures is often a testy and eldoric business. When one has done his best or when a mistake has arisen through lack of special knowledge, but more particularly when, as so often happens, our heart's best sympathies have been engaged, to be misunderstood by the patient and his friends, to have evil

* Sir Thomas Browne.

imputed and to be maligned, is too much for human endurance and justifies a righteous indignation. Women, our greatest friends and our greatest enemies, are the chief sinners, and while one will exhaust the resources of the language in describing our mistakes and weaknesses, and will laud her pet doctor so indiscriminately that all others come under a sort of oblique condemnation, it is hard to say whether as a whole we do not suffer just as much from the indiscriminate praise. But against this evil we are helpless. Far otherwise, when we do not let the heard word die; not to listen is best, though that is not always possible, but silence is always possible, than which we have no better weapon in our armory against evil-speaking, lying and slandering. The bitterness is when the tale is believed and a brother's good name is involved. Then begins the worst form of ill-treatment that the practitioner receives—and at his own hands! He allows the demon of resentment to take possession of his soul, when five minutes' frank conversation might have gained a brother. What more joyful in a small or large community than to see the brethren dwelling together in unity? The bitterness, the rancor, the personal hostility which many of us remember in our younger days has been very largely replaced by a better feeling and while the golden rule is not always, as it should be, our code of ethics, we have certainly become more charitable the one towards the other.

To the senior man in our ranks we look for an example, and in the smaller towns and country districts if he would remember that it is his duty to receive and welcome the young fellow who settles near him, that he should be willing to act as his adviser and refuse to regard him as a rival, he may make a good friend and perhaps gain a brother. In speaking of professional harmony, it is hard to avoid the trite and commonplace, but neglecting the stale old chaps whose ways are set and addressing the young, to whom sympathy and encouragement is so dear, and whose ways of life means so much to the profession we love, to them I would give the motto of St. Ambrose. It is told of St. Augustine, after having decided to become a Christian, that when he visited St. Ambrose, at dinner with the venerable father and his brethren, one motto above all others on the wall of the refectory caught his eye and heart, "If you cannot speak well of your brother, keep silence."

With our History, Traditions, Achievements and Hopes, there is little room for Chauvinism in medicine. The open mind, the free spirit of science, the ready acceptance of the best from any and every source, the attitude of rational receptiveness rather than of antagonism to new ideas, the liberal and friendly relationship between different nations and different sections of the same nation, the brotherly feeling which should characterize

members of the oldest, most beneficent and universal guild that the race has evolved in its upward progress—these should neutralize the tendency upon which I have so slightly touched.

I began by speaking of the art of detachment as that rare and precious quality demanded of one who wished to take a philosophic view of the profession as a whole. In another way and in another sense this art may be still more precious. There is possible to each one of us a higher type of intellectual detachment, a sort of separation from the vegetative life of the work-a-day world—always too much with us—which may enable a man to gain a true knowledge of himself and of his relations to his fellows. Once attained, self-deception is impossible, and he may see himself even as he is seen—not always as he would like to be seen—and his own deeds and the deeds of others stand out in their true light. In such an atmosphere pity for himself is so commingled with sympathy and love for others that there is no place left for criticism or for a harsh judgment of his brother. “But these are Thoughts of things which Thoughts but tenderly touch,” as that most liberal of men and most distinguished of general practitioners, Sir Thomas Browne, so beautifully remarks; and it may be sufficient to remind this audience, made up of practical men, *that the word of action is stronger than the word of speech.*

THE CONTRIBUTION OF PATHOLOGY TO SURGERY.*

BY DR. JOHN STEWART, HALIFAX, N.S.

There is no finer chapter in the history of our race than that which deals with the exploits of the early navigators of the fifteenth and sixteenth centuries. The sea was not then what it is now, mapped and measured, and marked by innumerable highways of travel. It was a dim, mysterious realm, with unknown bounds; little more was known of its nature when Homer sang, with a grand vagueness, of the Streams of Ocean.

And yet from Palos or from Bristol men set forth urged by the deathless yearning of the human heart to know and to do, with no guide but the scanty scraps of experience and their own hardy resolution, without sextant, without chronometer, without log book, without chart, they sailed out into the vast unknown, unmeasured, unsounded sea, fearing, but daring mystery, and hoping for the Hesperides.

The seamanship of those heroes was perfect: their navigation, their knowledge of the principles which lay at the foundation of their art, their equipment in all that is now deemed essential, was crude and rudimentary. How could it be otherwise when Newton was yet unborn, when the old Ptolemaic theory of the universe still held sway, and at a time when success and failure were attributed to the benign or baleful influences of the stars by which they sought to guide their course?

Long and slow was the progress of their science, centuries were to pass before their dreams came true, many and various were the sources from which help came, and even to-day there are problems unsolved, and a still elusive goal.

Nothing is more striking in the evolution of nautical science than the marvellous development of the last century, due chiefly to the introduction of steam as a motive power. It has created a new epoch.

I knew an old sea captain who told me that when he was an apprentice he sailed one winter morning in a brig called the *Westmoreland* from Belfast, bound out to St. John, N.B., "and," said the old man, "after boxing about the Western Ocean for one hundred and forty days we brought up in Cork harbor." Compare such a contingency with a voyage in such a ship as the *Oceanic*, which leaves her dock with the punctuality of clockwork, a scarcely greater punctuality than that with which she arrives in dock on the other side of the Atlantic.

The contributors to this wonderful advance may be divided

* Address in Surgery to the Canadian Medical Association.

into two classes. There was the practical sailor, quick to observe, ready to act, full of resource, with all

“The virtues which his perilous life
Extracts from Nature’s elemental strife.”

And there was the philosopher, the man of reflection, who pondered the reports of these adventurers in strange seas and under new skies, and sought for explanations of mystery, who followed learning for her own dear sake, and counted himself happy if only he might know the causes of phenomena and evolve a cosmos from seeming chaos.

A parallel, not altogether fanciful, may be drawn between those pioneers of ocean travel and the early masters of our craft. Those made their way through the uncertain world of waters, very synonym of change and unrest, guided on the one hand by their own hard-won experience and the traditions of their fathers, and on the other by the application of principles laid down by men who made a philosophic study of Nature, who searched into the secret of the sea, who built up the sciences of astronomy, geography and hydrography.

And these worked in the sphere of the human organism, mysterious, intricate, inexplicable, and they, too, worked on two lines, the long and weary and often fallacious track of Empiricism, and the ampler but often disconnected road constructed by those whose chief aim was, in the words of him who led the vanguard, “to study and search out the secrets of Nature.”

There was a cosmography, of a kind, and methods of measuring space and time before Copernicus and Tycho Brahe, and there must have been some sort of a pathology, some notion of the nature of the morbid processes in the mind of the first prehistoric surgeon who plugged a wound or opened an abscess. The troglodyte surgeon must have had some notion why he chipped holes in his patient’s skull.

But was the lore of the mediæval mariner, regarding the earth as a fixed expanse around which the heavenly bodies wheeled, casting a horoscope to secure a favorable voyage; sailing a wonder-sea of mystery and portent—a man who had anchored to the Kraken’s rugged side and who was well acquainted with the mermaid—was his science more unscientific than that of his brother, the surgeon? What a limbo of fantastic and irrational notions filled the minds of our colleagues of the Middle Ages! Yes, even of men who lived a century ago and whose voices still have power.

It is difficult for us to realize the strange notions of a time when the ancient humoral pathology in a very solidist manner still projected itself into the vortex of the Renaissance, when honoralist and solidist rose, struggled and sank, to reappear in

new disguises as they do to this day, when the vitalist imagined his "Archaeus," when skilled clinicians considered scabies a typical dyscrasia, and when a keen and cultured mind could believe in the "pulvis sympatheticus," and when the grotesque philosophy of Paracelsus, with its strange fore-gleams of latter day truth, held sway. Mediæval pathology is like a dark and troubled sea where gleams of truth shine pale through wildering mists, and where conflicting currents seethe and boil, "dark fluxion, all unfixable by thought."

And what navigation was to seamanship, pathology is to surgery.

Advance in nautical science was conditioned by the advance in the study of natural phenomena, by invention of instruments of precision, and the application of these to the purposes of the mariner. From China came the mariner's compass; from Nuremberg came the watch, precursor of the chronometer; from Flanders came Mercator with his charts; Scotland sent Napier with his logarithms; England supplied Hadley and the sextant; and the forerunner of the nautical almanac—the mariner's *rule mecum*—in the shape of the first almanac, came from Poland.

And nothing is clearer than that progress in surgery depended on the study of vital phenomena, and the application of the results of these studies and of new methods to the problems of disease and injury.

The pyrotechnics of Paracelsian dreamery were still blazing on the dim coasts of the old world pathology when the morning star of the new era appeared in the person of the first real anatomist, Vesalius, and day dawned with William Harvey, the Columbus of modern medicine. Harvey led the way in the application of experimental methods to biological questions. The result of his great discovery was a complete change in pathological ideas, and a new school of pathology soon arose under the guidance of the famous Boerhaave at Leyden. He, impressed by the study of the physics of the circulation, and aided by the discovery of the capillary system by Malpighi, and of the red corpuscles of the blood by Swammerdam and Leewenhoek, initiated the study of the local changes in diseased parts, and soon the first text-book of general pathology was brought out by Gaubius, distinctly biological in its view, and having for its text the maxim of Boerhaave, "*Morbus est vita præter naturam.*"

It was under the influence of these views and the new methods of study that Morgagni produced his epoch-making book, "*De Sedibus et Causis morborum,*" of which Virchow says, "it was the first time that the sum total of actual knowledge of the material alterations which disease occasions in the body was brought before the world."

With this pathological anatomy began and the way was prepared for John Hunter. He it was who introduced the experimental method into the study of disease, and by virtue of his intuitive genius, his amazing capacity for work and his practical applications of the results of his researches has well-earned the title, "Father of Scientific Surgery." "From the time of Hunter to the present time," says Billroth, "English surgery has had something of grandeur and style about it."

In the vast field of subjects which Hunter explored it is difficult to single out any one for pre-eminence, but it is undoubtedly on the score of his celebrated operation for popliteal aneurism that he is generally known as a practical surgeon. Mr. Butlin, in his interesting Cavendish Lecture, tells us, not without a stroke of humor, of the great expectations he had formed of interesting instances of the direct influence of pathological study on practical surgery, and how he found absolutely nothing of the sort in the history of medicine until he came to Hunter's operation, which he calls "the *one* example, the *only* example, up to that time, of deliberate surgical invention founded on the study of pathology by the man who made the invention."

But it is not in particular instances only, in improved methods of diagnosis, in aids to operative surgery, that the contribution of pathology is found. It is rather in the new principles gained, and in the new attitude towards Nature and phenomena that pathology has ennobled surgery.

Hunter helped us to understand our power of interrogating Nature, of interpreting her answer and our power of applying the knowledge so gained to the practical problems of our art. This was the beginning of scientific surgery, but much remained to be done, and it is noteworthy that the chief actors in the movement now were among the surgeons. Who can estimate the value of the impetus given to pathology by Xavier Bichat, in his studies of the tissues, or of Andral, in his hennato-pathology? After Bichat came Dupuytren, the practical surgeon, and in England Charles Bell revolutionized our theories of the nervous system.

The next great advance was to arise from a study of plant life, and the researches of Schwann and Schleiden paved the way for the cellular pathology of Virchow—the basis of our present system of pathology.

And a shadow falls upon us gathered here as we realize that the veteran master, the undisputed leader of pathological thought and progress for over fifty years, has fallen, and we unite in the desire to lay our spray of cypress on the tomb of him whom we all considered the greatest German of our time.

But with all these new acquisitions, the exact anatomical

knowledge, the clearer views of morbid action, there was still for the surgeon an unexplored sea of mystery. The pathologist went on his way rejoicing in his rapidly increasing store of knowledge, the surgeon still lingered, with anxious mind and heavy heart, for the question of questions to him was still unanswered.

The healing of wounds was the enigma of surgery, and the characteristic difficulty was the uncertainty attaching to the healing process. Here a wound healed quietly and soundly, without pain and without causing constitutional disturbance, and there it became inflamed, suppurated for weeks, causing intolerable anguish and exhausting the patient. Why the difference? Why so much more danger from the thrust of a pike than the stroke of a sabre? Why should a fracture of the leg, in which a splinter of bone had cut through the skin, be so much dreaded, while multiple simple fractures were seldom dangerous to life? Why was the peritoneum virtually a closed door to the surgeon's desires? Why did the implication of a joint add so terribly to the danger of a penetrating wound? Who can estimate the amount of anxious thought that has been given to this subject; who can gauge the disappointment that resulted from the application of so many theories? Empiricism was at its wits' end. Cold lotions and warm poultices, stimulating liniments and soothing ointments, wet dressings and dry, no dressings at all—all had their advocates, their occasional successes and their inevitable failures. The only certainty in the whole sad field was the certainty of failure, the certainty that however brilliant a series of cases a surgeon might have, it was sure to be broken some day, for some inexplicable reason. We can only wonder at the marvellous correctness of some of the guesses at truth that were made, and admire the results which were sometimes attained by men who would almost appear to have had an intuitive, if unconscious, knowledge of the truth. Witness, for instance, the extraordinary results of Alanson, at the Royal Infirmary at Liverpool, in the beginning of last century. And mark that Alanson was a pupil of John Hunter.

The idea of *materies morbi* is a very old one, and doubtless the idea that this might be a species of living matter is also old. The notion of parasitism of disease crops up repeatedly in the history of pathology. Monti, in his "Fundamental Data of Modern Pathology," claims for his fellow-countrymen Agostino Bassi, the distinction of being the founder of the doctrine of pathogenic microbes.

However this may be, it is certain that by the close of the eighteenth century this conception was present in the minds of many scientific workers.

It was reserved for Schonlein to prove in 1839 that the disease known as *tinea*, and considered as a typical "humoral" disease and not only so but hereditary, was really due to the growth of a fungus.

About fifty years ago Davaine and Chauveau proved that the disease known as anthrax was caused by the presence of an organism discovered in the blood of affected animals by Pollender in 1849.

The mists of conjecture were condensing and trickling into clear tiny rivulets, and soon these were collected by the genius of Pasteur into the grand fountain-head of the mighty stream of bacteriology. But the practical surgeon had gained nothing towards the elucidation of his enigma. Perhaps at no time was there greater helplessness in the treatment of wounds. The advance in methods of diagnosis and improved methods of operating introduced by such men as Syme and Nelaton, and other brilliant surgeons of the period, and the great discovery of anesthesia, had stimulated operators to increased activity. But the surgeon and his patient seemed the sport of a capricious fate. Epidemics of septic fever, pyemia, hospital gangrene and erysipelas decimated hospital wards and often attacked fifty per cent. of all operation cases, and hospitals were being closed. Surely surgery was suffering eclipse.

Then came Lister, and the dark hemisphere rolled in one grand movement from its age-long penumbra into noonday. Surgery—modern surgery—was born. In the chronology of our craft time is divided into Before and After Lister. The shadows of fear, anxiety and uncertainty left the surgeon's face, for now that

"Wise, rare smile was sweet with certainties."

It is a fascinating thing to trace the history of a great discovery, and when the time comes to write the history of the Listerian Renaissance, it will be found the Romance of Surgery.

"The great artist," says Amiel, "is a simplifier." "Art is simply the bringing into relief of the obscure thought of nature; a simplification of the lines, a falling into place of groups otherwise invisible. The fire of inspiration brings out, as it were, designs traced beforehand in sympathetic ink. The mysterious grows clear, the confused plain; what is complicated becomes simple, what is accidentally, necessary. "Every ideal is the key of a long Enigma." Lister's ideal fitted the key to the Enigma of Surgery.

I do not know that we are yet in a position to understand the profound change which this ideal brought into pathology. We cannot yet find a proper perspective, to view the work of him who is in surgery what Newton was in physics, "that

master mind to which" as Pearce Gould says, "we owe the greatest impetus that surgery has ever felt."

As the new system was developed step by step with irresistible logic and exact experiment, what illimitable vistas opened up before the surgeon, what realms undreamed of before.

"Then felt I like some watcher of the skies
When a new planet swims into his ken;
Or like stout Cortez when with eagle eyes
He stared at the Pacific—and all his men
Look'd at each other with a wild surmise—
Silent, upon a peak in Darien."

Lister, like Hunter, united in himself the pathologist and the surgeon, and like him he worked on the lines of Harvey and "searched out the secrets of Nature by way of experiment." The greatest contribution of pathology to surgery is through experimental surgery.

I have already had the honor of bringing before this Association some of the grounds on which we claim Lister as a great pathologist. His work on Inflammation, on the Coagulation of the Blood, and on the Action of the Nervous System as a powerful factor in pathological processes has been of direct and inestimable value to surgery apart from his *magnum opus*. I will now indicate some of the ways in which the pathological researches of others have directly influenced surgery. I shall choose three great departments of operative surgery.

The old operation for popliteal aneurism was to tie the vessel on either side of the tumor, cut it open, turn out the clot and allow the wound to heal by suppuration. The mortality was very high, the usual cause of death being secondary hemorrhage from the proximal ligature cutting its way through the artery. The current pathology of aneurism, founded mainly on some observations of Haller, ascribed aneurism to a weakening of the vessel wall. Hunter came to the conclusion, from clinical and *post-mortem* study, that aneurism was due to disease of the arterial coats. But he was not content to think so. He experimented on the dog and found that mere weakening of the vessel by removal of portions of its outer walls did not lead to aneurism. He proposed to tie the artery high up where it was healthy, arguing that the current in the artery being thus shut off pressure in the aneurism would cease, and coagulation would take place; also that the collateral circulation would be sufficient to keep up the vitality of the limb without causing appreciable reflux into the sac. And what of the tumor itself? Instances have been recorded by Valsalva and others of the disappearance of aneurismal tumors which had undergone spontaneous cure, and, whether Hunter was aware

of this or not, he seems to have trusted to absorption for the removal of the solidified contents of the sac, and we all know the brilliant success that proved his reasoning true.

A more modern instance of an operation conceived in the same spirit is afforded in the first nephrectomy, by Gustav Simon, of Heidelberg. A patient came under his care suffering from a urethral fistula. In the sixties probably no surgeon had yet dreamed of urethral anastomosis and removal of the kidney seemed to offer the only chance of cure. But was the operation feasible?

It must have been long known, thanks to morbid anatomy, that one kidney might be destroyed by disease and the patient yet remain healthy. It was a quite different matter to remove a kidney by operation without any opportunity for compensatory changes to take place. But experimental pathology had furnished proof in the hands of Zambecarius that, in the dog, one kidney might be removed without appreciable injury to health. Simon repeated these experiments. He learned that the chief danger was from peritonitis, that there was not much fear of hemorrhage, that uremia was not to be dreaded, that neither albuminuria nor cardiac hypertrophy followed, and that compensatory hypertrophy occurred in the remaining kidney. And so, in 1869, he removed the kidney, and succeeded in curing his patient of her distressing malady.

Few things would have amazed and delighted John Hunter more than the recent developments in brain surgery, and especially the steps by which the perilous ascent was gained. Diseased brains have been examined since the time of Morgagni, but it was the genius of Broca which first pointed to a *sedes morbi* for aphasia. The same fortunate blending of clinical acumen with exact morbid anatomy enabled Hughlings Jackson to extend our knowledge of the dependence of intercranial diseases on local alteration of structure. But it was necessary to have the irrefutable proofs afforded by the experiments of Fritsch and Hitzig and of Ferrier before the surgeon could project his chart of cerebral surgery and sail for the Island of Reil.

Now it is evident that I need not weary you by going into further details to show how pathology, in its various departments of morbid anatomy, etiology, chemical, microscopic and experimental pathology, has contributed to the advance of surgery. Every day brings new evidence.

Our understanding of morbid processes has been and is still being enlightened, our power of diagnosis is increased, and our ability to cope with disease and injury is extended.

It is often said that the foundation of surgery is anatomy, and this is true in a sense, for anatomy is the first step in

pathology. A knowledge of anatomy is absolutely essential to the study of the human body. But anatomy deals with dead matter, pathology with living, if morbid, activities— anatomy is finite, but pathology, in the permutations which may occur in anatomical elements, is infinite, and it is the realm which the surgeon must explore who wishes to have a firm grasp of the principles of his art. Much has been learned, but more lies waiting discovery. There is always another “peak in Darien” and many surmises to make sure—*“O mare a littus verum secretumque Moveior quam multa invenitis quam multa dictatis.”*

Navigation owes much to the various institutes founded to further its study. Who can tell the value of the early naval schools in Spain, or of the Greenwich Observatory? And so if pathology is to flourish provision must be made for its study. Every hospital should have its Pathological Institute.

And here we know we shall find ourselves in collision with that section of the public to whom science is uncongenial and medical science an abomination. Pathological study may not always seem interesting or profitable. The ancient mariner would have smiled to think the Tuscan artist, with his optic glass, could be of any benefit to him, and perhaps Galileo was thinking more of descrying new lands, rivers and mountains in the moon than of assisting the sailor, nevertheless he was helping to lay the foundation of the science which was to make the modern sailor's work possible.

And when the father of our own illustrious Lister, applying his knowledge to the physical and chemical characters of glass, perfected our achromatic microscope, there were practical surgeons who would certainly have failed to see any bearing which his work had on theirs.

When watches were first made in Nuremberg the only thought in the maker's mind, probably, was the accurate registration of the passing of time. But Gemma, the Italian, intent on perfecting methods of navigation, seized the idea of the watch at once as a means of computing longitude and led the way to the use of the chronometer. And the gain is not necessarily all one way, for the practical surgeon, making careful clinical records, may furnish the pathologist with new ideas, and, if one may wrest the words from their original meaning, he,

“Doomed to go in company with Pain,
And Fear and Bloodshed, miserable train,
Turns his necessity to glorious gain,”

and may help to introduce new forces into the healing art.

Here in Canada, while we have had ample experience of the anti-vaccinationist, we have scarcely made the acquaintance of

his colleague, the anti-vivisectionist. But the sign of the times indicate that full scope will soon be given to his vituperative faculty, for in the Universities of McGill and Toronto pathological research has fairly started on its way.

If we cannot, however, "mollify the spirit of captious contradictors," we may perhaps deprive them of an audience by teaching the public that those who devote their time to the investigation of disease, and who may sometimes find it necessary, for the elucidation of the problems submitted to them, to inflict pain on animals, may be lightening the burden of humanity as well as he who directly mitigates its pains, and that their work may be regarded like that of every conscientious surgeon, as a sacred duty, a responsible task, carried out "as ever in the great Task-Master's eye."

Selected Article.

RUDOLF VIRCHOW, M.D.,

PROFESSOR OF PATHOLOGICAL ANATOMY, UNIVERSITY OF BERLIN.

It is with the deepest regret that we announce that Professor Rudolf Virchow died at his house in Berlin on September 5th. On January 3rd of the present year he fell while alighting from an electric tramcar in the Leipziger Strasse, Berlin, and suffered a fracture of the neck of the femur. He recovered to a considerable extent from the effects of the accident, and there seemed for a time to be a prospect of his restoration to active life; two or three weeks ago, however, he began to lose ground, and his condition gave rise to such anxiety that a few days ago he was brought back from Harzburg to Berlin. He died peacefully in the arms of his wife, an unmarried daughter who lived with him and his daughter-in-law being also present. Though it was clear that he was sinking, it was not known that the end was so near. His son, Professor Hans Virchow, who had called in the morning and gone away, was hastily summoned in the afternoon, arriving just before his illustrious father passed away.

The death of Rudolf Virchow, though for some time past it has been clear that the sands of his life were running very low, has at the last come upon us with something like the shock of the falling of a great tower. In him has passed away one who was in the truest sense a mighty ruler, for he ruled not the bodies but the minds of men. For well nigh half a century he held almost sovereign sway in a realm of science which he himself had conquered—it might almost be said created. When men whose names are now familiar as household words on the lips of all students of medicine were still in the nursery, Rudolf Virchow was already famous as the pioneer of a new world of research.

Grievous though the loss of such a man must be, we have not to mourn in him a life cut short before the fulfilment of all that it held in it of promise for the advancement of knowledge and the good of mankind. Virchow had done his work, and he has left us heirs of all the produce of his teeming brain which wrought in fruitful activity, "without haste but without rest," throughout his long life.

BIOGRAPHICAL SKETCH.

Rudolf Ludwig Karl Virchow was born on October 13th, 1821, at Schivelbein, a small town in Pomerania. He was the

son of a shopkeeper, but beyond the names of his father and mother, Karl Virchow and Johanna Hesse, nothing is known of his family. Till his thirteenth year he lived at home, attending the public school of his native town, and later being prepared for the gymnasium by private tuition. In 1835 he entered the gymnasium of Cöslin, the chief town of the district. There he came under the influence of the Director, Otto Moritz Müller, whose attention was drawn to him by his knowledge of Latin, which was remarkable in a boy of thirteen.

Virchow entered the Friedrich Wilhelm Institute, founded for the education of medical officers for the Prussian Army. On October 21st, 1843, he took his doctor's degree at the University of Berlin.

Almost immediately after graduation Virchow was appointed Assistant to the Prosecutor of the Charité Hospital. That post was then held by Robert Froriep, and on his resignation in 1846 Virchow was chosen as his successor. In the following year Virchow qualified as *Privat-docent*. About the same time, in conjunction with his friend Benno Reinhardt, he founded the famous *Archiv* which bears his name, and which he continued to edit till his death. In 1848 he was sent by the Prussian Government to investigate an epidemic of typhus fever which was raging in Upper Silesia.

Virchow's political activity brought him into conflict with the authorities. He was compelled to resign his appointment as Prosecutor to the Charité. But his politics had not made him neglect pathology. He had published his epoch-making researches on phlebitis, thrombosis and embolism, and on leukemia, besides numerous contributions to morbid anatomy. He had also made his mark as a teacher.

INSTALLED AT WURZBURG.

His reputation had already become so considerable that he was offered a Chair by the University of Würzburg. He took possession of the Chair in May, 1849, and remained there till 1856.

RECALLED TO BERLIN.

In 1856 Virchow received an invitation to become Professor of Pathology at Berlin. He accepted it on the condition that an institute for practical work was founded. The readiness with which the authorities met his views showed the importance they attached to securing his services. When he entered on his career as professor at Berlin the museum of Morbid Anatomy contained only some 1,500 preparations. When, on his eightieth birthday, he received the congratulations of the scientific world in the new Pathological Museum which is the

outcome of his own indefatigable exertions, the number of preparations in it was stated to be nearly 23,000.

THE "CELLULARPATHOLOGIE."

In 1858 appeared the *Cellularpathologie*, in which he laid the foundations of scientific pathology. The conception on which the whole structure rests is formulated by the author in the famous proposition, *Omnis cellula a cellula*. The work is one of the classics of medical literature, one of the great landmarks in the road leading from the darkness of ignorance to the light of knowledge. Of this monument of patient research and brilliant generalization, Lord Lister said that it "had swept away the false and barren theory of a structureless blastema, and established the true and fertile doctrine that every morbid structure consists of cells which have been derived from pre-existing cells as a progeny. . . . Even those morbid structures which deviate most from the normal structure are known to be derived as a progeny from normal tissue—from normal cells, driven to abnormal development by injurious agencies." The principles set forth in the *Cellularpathologie* were applied by Virchow to the elucidation of the genesis and development of tumors in his other great work, *Die krankhaften Geschwülste*, which was published between 1863 and 1867.

HIS LITERARY PRODUCTIVENESS.

His addresses, lectures and miscellaneous papers are almost innumerable. In 1893 he delivered the Croonian Lecture of the Royal Society, taking as his subject the Place of Pathology in Biological Study. He also delivered addresses, each in its way memorable, at the International Medical Congresses of London, Berlin, Rome and Moscow. In 1898 he delivered the Huxley Lecture at the opening of the winter session of the Charing Cross Hospital Medical School; in this he summed up in a masterly manner "recent advances in science and their bearing on medicine and surgery." The astonishing range of his work is shown by the almost encyclopedic variety of the subjects with which he dealt.

His work as a hygienist alone would entitle him to the everlasting gratitude of his fellow citizens, for it is mainly owing to his persistence in urging administrative and sanitary reforms that Berlin is now one of the healthiest cities in the world. He was for many years one of the most active members of the Berlin Town Council, and he used the influence which that position gave him to bring about the reform of many police abuses and to promote the comfort and well-being of the people.

HIS POLITICAL CAREER.

Of Virchow as a politician considerations of space will not allow us to say much. The mere statement of the fact that for many years he was the recognized leader of the Radical party in the Prussian Chamber will serve to give some measure of the versatility of this wonderful man. The part which he played in politics would have sufficed to make him one of the most conspicuous figures in the public life of Germany, but so great was he in the domain of science that his political distinction scarcely added to his fame. He became a member of the Prussian Chamber in 1862, and quickly took a leading position in that body. Bismarck soon recognized in the quiet, insignificant-looking professor an opponent with whom he had to reckon. Indeed, the Man of Blood and Iron honored Virchow with a special hatred, for the great pathologist was the incarnation of that "Professorismus" which he detested. In 1865 Virchow defeated the Government on a motion to create a German navy, and Bismarck was so enraged that he challenged the professor. Virchow had the courage to decline to expose to the chance of a duel a life which he felt to be more valuable to mankind than that of any statesman. He was Chairman of the Finance Committee of the Prussian Diet for twenty-five years, and in that capacity took a large part in establishing the present Prussian Budget system. In 1878 Virchow retired from active political life, and although he was elected to the German Reichstag in 1880, he took little part in debates.

HONORED BY THE PROFESSION OF THE UNITED KINGDOM.

The veneration felt for Virchow by the profession of this country was shown in a striking manner on the occasion of his visit to London in 1898. He was entertained at a great banquet at which more than 200 were present; among them were all the leaders of the profession in the three kingdoms. Lord Lister, in proposing his health, said that all of them might rank as his disciples, for the truths which he had enunciated had been studied and learnt by them all. Lord Lister went on to say that though it was doubtless in pathology that Virchow reigned supreme, there were various other departments of human knowledge which he had made his own. No man living was better versed in the history of medicine. He was an acknowledged authority on anthropology, and a distinguished antiquarian. Referring to his political activity, Lord Lister said that whatever differences of opinion on that subject there might be, one thing must be admitted by all—that Virchow's voice was ever heard in defence of liberty, truth,

and righteousness. Sir Samuel Wilks, with a slight adaptation of Pope's epitaph on Newton, said:

Nature and Nature's laws lay hid in night;
God said, Let Virchow be, and all was light.

THE MAN.

Professor Virchow retained his marvellous vitality of mind unimpaired till the end. He lectured as usual up to the time of his accident, and foreign visitors were deeply impressed by his grasp of the most recent developments of pathology. Always simple and modest, he never showed any desire for the honors and distinctions which are so greatly valued by the bulk of men. As a writer in the *Times* well says:

He was always the same, whether shaking hands with royalty, accepting the respectful homage of an important deputation, packing up in his own house, or lecturing to the most scientific gathering in the world—always the simple little grey man, sincere, kindly, unassuming, absorbed in his subject, not in himself, crammed with information, profound and penetrating in thought, plain in utterance, the embodiment of accurate knowledge and sound judgment, the true servant of truth.

As a lecturer and teacher Virchow showed a ready command of language. His style was exceedingly simple and clear, being free from those involved sentences so common among early speakers and writers, and which at once suggested a nest of pill boxes. Speaking about these sentences, he once said to me that, German as he was, in reading some of the older German works, he was sometimes obliged to analyze a sentence, and to say to himself, "This subject goes with that predicate and this relative with that antecedent and this auxiliary with that verb," just as if he were constructing a difficult sentence in Latin. He was convinced that this involved style had in the past been a serious hindrance to the progress of German science, and he early determined to form a simpler style for himself.

Personally, his manner was affable and democratic; he encouraged students to gather round him after the lecture and to ask explanations of anything that they did not fully understand. He was a great snuff-taker, and would pause a number of times in each lecture to enjoy his favorite luxury. I can hear now the preliminary tapping of his finger on the lid of his snuff-box and the half dozen strong nasal inspirations that followed. The impression that he left upon one was that of a genial, kindly man, as well as of a great scientist.

VIRCHOW'S PATHOLOGICAL WORK.

Virchow's great task was to free medical knowledge from the conflicting dogmatism and arbitrary hypotheses which encumbered it, and to establish its leading principles irrefutably by a process of sound induction from actual observations and experiments. At the commencement of his career the humoral theory was dominant, and the explanation of morbid processes was sought either in the nerves, the blood, or the exudations of the body. So long as these views prevailed, it was impossible to form a true appreciation of the brilliant discoveries of pathological anatomy which had been made in the Vienna school, and hence Rokitansky, their leading exponent, whose theory of crases and dyscrasies of the blood was supposed to explain anatomical lesions, was one of the first objects of Virchow's attack.

Virchow's first important labors were upon the nature of blood diseases. Commencing immediately after he took his degree with an investigation into the nature of phlebitis, he followed up these researches with a series of brilliant discoveries which alone would entitle him to a position in the front rank amongst the pathologists of last century. The conditions of vascular inflammation, the causes of thrombosis and embolism and their relation to infection were investigated; pyemia was defined and clearly distinguished from leukemia, with which it had previously been confused, and a valuable insight was given into the nature of the latter disease.

Soon after the commencement of his *Archiv* he began to publish articles in that journal which foreshadowed the appearance in 1858 of his *Cellularpathologie*. In that work, which is the foundation of modern pathology, the researches of Schleiden and Schwann upon the cellular structure of vegetable and animal organisms were confirmed and further elaborated, and the part which the cell plays in pathological processes was established for the first time.

The work on tumors was published in parts which appeared successively between the years 1863 and 1867, but were unfortunately not completed. The whole is dominated by the fundamental idea of the cellular theory, and contains a vast amount of valuable matter, amongst which the classification of sarcomata and demonstration of their mesoblastic origin are particularly conspicuous. Whilst the books on cellular pathology and tumors will always remain the best known of Virchow's works, it must not be forgotten that they only represent a small fraction of the labor which he expended upon the advancement of pathology.

In paying a tribute to his memory we naturally recall the

warm and unanimous appreciation which has been accorded to him during his lifetime from all Europe and America, and remember with particular pride and satisfaction the generous recognition of his work by our own leaders of science, Huxley and Lister, to whose achievements Virchow has been equally ready to pay honor on his visits to this country. But the highest tribute to Virchow's work is the living reality of his own ideas.

Virchow's life is the most eloquent example we possess of a man actuated throughout by the high ideal of the medical duty to combat disease. To fulfil that duty as he did is the gift of a genius almost superhuman. Though we cannot hope to emulate him in the magnitude of his work, his example provides a directly practical and personal lesson which can best be learnt from the noble simplicity of the ideas which inspired him. He has placed medical science on a substantial basis by employing the methods of observation and experiment. But his work is preparatory, and is far from having gained completion. The leading problems of disease are still unsolved, and to pursue and widen those broad principles of investigation he has taught us is as imperative a duty to-day as it was fifty years ago. The sincerest homage we can pay to Virchow is to realize the gravity of the obligation he has bequeathed to us, to remember that medical knowledge to-day is still encumbered with arbitrary hypotheses and conflicting dogmatism, and to steadily pursue the course towards a co-ordinated system of knowledge, with the same responsible appreciation of scientific ideals which is the common heritage he has left in the possession of all.—*Abstract British Medical Journal.*

Society Reports.

CANADIAN MEDICAL ASSOCIATION.

The thirty-fifth annual meeting of the Canadian Medical Association was held in the City of Montreal on the 16th, 17th and 18th of September, under the Presidency of Dr. Francis J. Shepherd.

As an evidence of the great success which attended this meeting, the fact that more physicians registered on the first day than on any other previous first day, speaks volumes.

At the morning general session of the first day a resolution of regret at the recent death of Professor Virchow, which was at the same time one of appreciation for the great work of this eminent pathologist, was proposed by Professor Adami, seconded by Dr. Gardner, Montreal, and carried unanimously.

The meeting divided into sections, Dr. McPhedran, Toronto, taking the chair at the medical session, while Dr. O. M. Jones, Victoria, B.C., looked after the surgical section.

MEDICAL SECTION.

FIRST DAY—MORNING SESSION.

Living Case, Splenic Anemia.

Dr. H. A. Latleur, Montreal, presented a patient—a man in middle life. There was a tumor, a movable mass about mid-way between the lower ribs on the left side and the crest of the ilium, with pulsation, but not expansile, over the tumor. The first blood count, made in March, showed 75 per cent. hemoglobin, the red corpuscles, 5,000,000; the white, 6,400. A blood count made again on the 15th September, 1902, showed 4,000,000 and 5,800 respectively. The tumor changed according to degree and distension of the stomach. There was absence of mobility.

Dr. Osler referred to the difficulty in diagnosing this case, and said that enlarged spleen was often clinically mistaken for something else. This was just one of these cases in which the diagnosis was more surgical than clinical.

Some Further Results in the Treatment of Tuberculosis.

Dr. J. H. Elliott, of the Gravenhurst Sanatorium, contributed this paper. At a meeting of this association in Toronto in 1899, a report was made upon 155 cases of pulmonary tuberculosis

under Sanatorium treatment. This paper is a further contribution, covering some 400 additional cases treated during the past three years. The nomenclature used in the classification of discharged patients is that adopted by Trudeau: "Apparently cured," "disease arrested," "much improved," "stationary" and "failed."

Five years' experience has shown that almost all of the patients discharged "apparently cured" remain perfectly well—of those with "disease arrested" many have progressed to good health at home by following the rules of life learned at the Sanatorium, renewed activity of the disease, when occurring, having been as a rule due to unfavorable surroundings, or the necessity of again taking up unsuitable work.

Not the least important part of the work of a sanatorium is its educative influence. Each patient who returns home is a teacher of the value and importance of a hygienic life to those who wish to retain their health, as well as those who are not strong.

Experience is demonstrating the immense amount of influence for good which results from a properly equipped and conducted sanatorium. It is unfortunate that there are not more of them. It is hoped that the attention of our philanthropists will be drawn to the crying need of such institutions, and that ere long we shall have a number of them in the various Provinces of Canada.

Dr. Osler congratulated Dr. Elliott on the promising results which he has obtained. Two important points should be kept well in mind: First, early diagnosis, and, second, getting patient as soon as possible under proper professional control.

Dr. T. D. Walker, St. John, N.B., referred to the control the physician in the sanatorium had over the patient.

Dr. John Ferguson, Toronto, spoke of the positive advances that have been made along the line of the curability of pulmonary tuberculosis.

Dr. McPhedran, Toronto, emphasized training patients how to care for themselves at home. He believes, too, that it is true that the neighborhoods of sanatoria are areas where tuberculosis is always diminishing.

Pleurisy as Associated with Tuberculosis.

Dr. John Hunter, Toronto, read this paper. He first referred to the manner in which bacilli reached the visceral and parietal pleural layers through the sub-pleural, bronchial or tracheal lymphatic glands, and from the cervical mediastinal and peritoneal lymphatics; also from the tonsils. In arriving at a diagnosis of pleurisy, a vigilant search should be made for a possible tuberculosis origin. One should not always consider the outlook

gloomy, as with properly carried out treatment, the progress is much more favorable than in pulmonary tuberculosis. In at least two-thirds of tubercular pleurisy it is a curable affection. The rapidity of the filling of the pleural cavity is especially characteristic of tubercular cases.

Dwelling upon treatment, during convalescence, deep breathing should be practised very assiduously, and inflation with rubber bags is a valuable exercise. Then change to a suitable climate should be insisted on if the progress towards recovery be retarded.

Clinical Notes on Blood Pressure in Diseased Conditions.

Dr. A. E. Orr, Montreal. A. Gaertner's Tonometer was shown and the manner of its use demonstrated. Four hundred patients at the Royal Victoria Hospital, Montreal, were experimented on. The normal pressure was found to be 110 to 120. Seventy cases of typhoid fever were recorded in different stages, showing an average blood pressure of 104.5 mm. It was highest, but still sub-normal, in the first week. There was only one death, which took place in a man of thirty-five years, when pressure was 105 on tenth day, 110 on twenty-first day; then three hemorrhages, and on the twenty-fourth day a fatal hemorrhage. A large proportion of these had cold baths or cold sponging.

Nineteen cases of chronic nephritis were recorded. Of this group the highest was 260; average 208.5. Of acute nephritis there were seven cases; only three of these showed high pressure. Of arterio sclerosis 27 cases were recorded; highest 210, 16 being 150 and over; four from 130 to 145; three from 110 to 125; four subnormal. The highest was in a man of 72; glycosuria, no albumen.

Valvular diseases of heart, 48 cases, including 11 cases of mitral regurgitation. In mitral stenosis eight cases were recorded, six being normal. Mitral stenosis with mitral regurgitation, 14 cases. Eleven had practically normal tension. Aortic insufficiency, three cases. Myocarditis, four cases; one man aged 60 having pressure of 80. Hypertrophy and dilatation of heart of unknown causation, two cases 120 and 110 respectively. There were 18 cases with acute lobar pneumonia, with an average for the series of 92.7; only one death. Pleurisy 16 cases. Neurasthenia 18 cases, 13 having normal pressure; three from 135 to 140; one of 160. In malignant disease, cancer of viscera, there were no high readings. Anemia six cases, all being normal. Addison's disease two cases, both in early stage; both normal. Puerpura hemorrhagica, one case; normal. Puerperal septicemia, one prolonged case, ending in recovery, had extremely low blood count, 930,000; above

normal. One gall-bladder case with suppuration—a blood pressure of only 50 ten days before death.

One lead poisoning, three of jaundice, one of tubercular meningitis; two of diabetes: two of exophthalmic goitre; eight of acute articular rheumatism, heart not affected; chronic articular rheumatism, four cases, all normal; gonorrheal rheumatism, eight cases, six normal; rheumatoid arthritis, 16 cases, six normal; gout, four cases.

There was one case of hemiplegia and 14 of tabes dorsalis 11 normal pressure; cerebral tumor, eight cases; general paralysis of insane, one case; Friedrich's ataxia, one with albuminuria, 140: one acute ascending paralysis, 140: two cases tic douloureux, one 130 during the attack. There was one case of epidemic influenza and 36 miscellaneous cases.

In discussing this paper, Dr. Osler considered it to be the best contributed article on the subject.

On the Technique of Recording the Venous Pulse.

Dr. W. S. Morrow, Montreal, gave a practical demonstration on the blackboard and presented a living subject.

SURGICAL SECTION.

FIRST DAY—MORNING SESSION.

Amputation of the Upper Extremity for Sarcoma of the Shoulder Joint: Living Case.

By Dr. J. Alex. Hutchison, Montreal. The patient—a young woman—presented by Dr. Hutchison, gave a history of previous injury to the shoulder, followed by the development of a growth in the head of the humerus, accompanied by intense pain. An X-ray of the parts revealed the presence of a large growth which invaded the joint, and involved the scapula. The patient was in an extremely unsatisfactory condition for operation, and presented evidence of marked cardiac disease. The incision extended from the middle of the clavicle in front down over the pectoral regions to the lower part of the axilla, and behind, passed over the scapula down to meet the anterior incision.

After severing the middle of the clavicle, the great vessels were ligated, the brachial nerves divided high up, the muscles divided and the scapula freed from its attachments. There was little hemorrhage, and the wound healed readily. Microscopic examination of the growth showed it to be a mixed spindle, and round, called myeloid sarcoma.

A Fatal Case of Secondary Hemorrhage Four Days Following the Removal of Adenoids.

By Dr. Perry G. Goldsmith, Belleville, Ont. This paper deals with the case of a child operated on by Dr. Goldsmith for obstructive deafness due to enlarged faucial tonsils. The operation was not unusual, and the condition of the patient, on the second and third day after the operation, was apparently satisfactory; on the fourth day, however, repeated and alarming attacks of hemorrhage set in, resulting fatally in a few hours. There was no history of hemophilia. The patient was under the care of the family physician at the time of death, and as no *post mortem* could be obtained, the cause of the hemorrhage remained unknown.

Occlusion of Posterior Nares.

By Dr. H. D. Hamilton, Montreal. The patient was a young man, aged 17, who complained of constant discharge from right nares, with complete obstruction of the same side. Duration of the condition about twelve months. On examination, the patient presented a complete bony partition occluding the right side. Family and personal history was negative. Treatment: The bony wall was perforated, and the opening further enlarged by graduated bougies.

The Telephonic Properties of the Inflamed Abdomen; A Sign not Hitherto Described, Due to Paralysis of the Bowel in Peritonitis.

By Dr. Geo. A. Peters, Toronto. In auscultating the abdomen with a view to ascertaining whether there was paralysis of the bowel in cases of appendicitis, typhoid perforations, traumatism, and other conditions which stand in a causative relation to peritonitis, Dr. Peters has observed that where the gurgling sounds due to the passage of gas and liquid in the bowel are absent from paralysis, the heart sounds are invariably very plainly present over the whole abdomen. In intense cases, particularly in children, both inspiratory and expiratory breath sounds may be heard. Dr. Peters' explanation of the phenomena is, unlike the healthy bowel—where the gas is retained in certain well-defined and circumscribed compartments, each constituting a complete retainer in itself, with vital walls possessing a muscular tonicity under nervous control—the paralyzed bowel, by reason of its flaccid and atonic condition, permits an entire change in the disposition of the contained gas; the entire distended abdomen becomes practically and acoustically considered, a continuous column of air or gas, of the precise

principle of the stethoscope. The effect of this is further heightened by the rigid abdominal wall, which acts as a sounding board. The prognostic significance would seem to indicate an unfavorable termination in those cases where the sign is very well marked in cases of septic origin.

On the Use of the Subcutaneous Injections of Paraffin for Correcting Deformities of the Nose.

By Dr. G. Grimmer, Montreal. Dr. Grimmer spoke briefly of various other deformities which had been corrected in this manner. In the preparation of the paraffin, it is first sterilized by subjecting it to high temperature. It is then injected by means of a sterilized syringe. In the case of the nose, the inner canthi of the eyes should be protected from the spreading of the paraffin, by firm pressure applied to the sides of the nose by an assistant's fingers. After injection the parts are moulded by operator as required.

After treatment: Collodion is to be applied to the needle puncture, and cold compresses to control edema of the nose and eyelids.

Some possible dangers from the treatment are, paraffin embolism, and necrosis of the skin over the parts.

Dr. Grimmer exhibited two patients successfully treated in this manner; also two rabbits which had been subjected to similar injections.

A Case of Filariasis in Man Cured by Operation.

By Dr. A. Primrose, Toronto. A man from the West Indies suffering from lymph scrotum presented himself for treatment and gave a history of attacks of fever which suggested the presence of filariæ. On examination of the blood one found the embryos present in large numbers. The embryos of filariæ were found in large numbers at night, but disappeared from the blood during the day. An operation was performed and a large portion of the scrotum removed. The excised tissue was carefully examined by teasing it in salt solution, and a parent worm was discovered and removed alive. This proved to be a female, and it was subsequently fixed and mounted in a suitable manner for microscopic examination. Subsequent to the operation the filaria embryos entirely disappeared from the blood, and the inference was that the parent producing the embryos had been removed by operation.

The parent worm was afterwards carefully studied by Dr. J. H. Elliott, M.D., Toronto (late of the Malaria Expedition to Nigeria from Liverpool School of Tropical Medicine), and a report of his investigations, with drawings of the worm, formed a part of the paper as communicated by Dr. Elliott.

GENERAL SESSION.

*FIRST DAY—AFTERNOON.***Address in Surgery, "The Contribution of Pathology to Surgery."**

By Dr. John Stewart, Halifax, N.S. Owing to the unavoidable absence of Dr. Stewart, this paper was read by Dr. J. W. Stirling, Montreal. (See page 569.)

PRESIDENT'S ADDRESS.

On the evening of the first in the Arts Museum Dr. Francis J. Shepherd, of Montreal, delivered the annual presidential address. (See page 541.)

SECOND DAY—FORENOON.

A general meeting of the association opened with a discussion on diseases of the gall-bladder and bile ducts. Dr. Alexander McPhedran, Toronto, introduced the medical diagnosis in this discussion. He mentioned the fact that the gall ducts are narrower at their entrance to the bowel than in other parts of their lumen, and as they lie nearly horizontally the outflow of bile is easily retarded or obstructed. The ducts are much exposed to infection from the intestinal tract. Of the cardinal symptoms in these cases Dr. McPhedran considered jaundice the most common, while pain varies, but is generally intense. The attendant fever is generally due to toxic absorption. The main diseases to be considered in differential diagnosis are, catarrhal and suppurative cholangitis and acute yellow atrophy. Most catarrhal conditions are infective, but the chills and fever may occur without pus formation. The most common germ present is the common colon bacillus. In the gangrenous cases the symptoms are often ill defined. A most characteristic sign of gall-stone is the recurrence of the attack.

Dr. A. D. Blackader, in discussing the treatment of gall bladder affections, said he would confine himself principally to catarrhal forms of the disease. He considers the condition more commonly due to altered secretion of the bile ducts, the altered mucus causing inspissation of the bile. Infection of bile he thought takes place in two ways, through the bile ducts and through the portal circulation. In the matter of treatment he considers that no drugs stimulate the flow of bile to the same extent as the bile salts. The flow is increased by exercise and deep breathing. Diet should be carefully considered, should be simple, and as far as possible should contain a large amount of fat. Such patients should drink plenty of

pure water or mineral water. The patients should also have due regard to a proper method of dress, no corsets or constricting clothing should be worn.

Surgical diagnosis was introduced by Dr. James Bell, of Montreal. He said it was common to find early vague symptoms of gastro-intestinal indigestion, which were often found to be present for a long time before an acute attack was precipitated. He spoke of the colon bacillus and the typhoid bacillus as common causes of infective conditions.

The subject of surgical treatment was introduced by Dr. J. F. W. Ross, of Toronto. In commencing his paper, Dr. Ross expressed a certain lack of faith in the so-called medical treatment of gall-stones. Speaking of some details of gall-stone operations, Dr. Ross advocated drainage through Morrison's pouch. He laid great stress on the free use of gauze packing to prevent leakage into the peritoneal cavity. In gangrene and empyema of the gall-bladder he does not advise removal of the gall-bladder but prefers opening, flushing and draining. In many cases of cystic enlargement of the gall-bladder, however, he advised entire removal of the viscus. It is well to remember, after removal of the gall-bladder, that gall-stones may form in the liver and be passed out into the intestines. He considers mucus fistulæ, which occasionally follow operation, as the most troublesome, and said the evil should as far as possible be prevented by the use of a small drainage tube. He also drew attention to the importance of being sure that the drainage tubes did not become blocked.

The discussion of the surgical treatment was continued by Dr. G. E. Armstrong, Montreal, who recognizes and recommends the employment of medicinal treatment first in gall-stones, etc. He does not advise removal of the gall-bladder, for stone in the cystic duct. He recommends lavage of the stomach before operating on all gall-bladder cases, and as it is difficult to know what the surgeon may encounter on opening the abdomen he advises the administration of calcium chloride before and after operation to prevent possible hemorrhage.

Dr. Dudley Allen, of Cleveland, Ohio, next spoke "On the Importance of Early Operation on the Gall-Bladder." He considers, in view of the fact that an accurate diagnosis is often impossible, an exploratory incision at least should generally be made early, when he claims, it is often found that many obscure cases are quite amenable to surgical treatment, and, in fact, would fail to recover if we were to temporize. He recited a number of cases where the diagnosis was uncertain, where he had made an exploratory incision and had often been gratified with the results.

The subject was further discussed by Sir William Hingston, of Montreal, and Dr. Alex. H. Ferguson, of Chicago.

"On Foreign Bodies in the Vermiform Appendix."

By Dr. James Bell, of Montreal. In this paper the writer expresses his opinion that appendicitis never depends on the presence of foreign bodies in the lumen of the appendix. There is little doubt, however, that when foreign bodies gain entrance accidentally into the appendix they aggravate an otherwise septic infection. Among the foreign bodies which he has found in the appendix are, in two cases pins, in two cases seeds, in one case wood fibre, in one case gall-stones, and in another case a fish bone.

Dr. Bell's paper was further discussed by Mr. Irving Cameron, of Toronto.

MEDICAL SECTION.

*SECOND DAY—AFTERNOON.***Kernig's Sign. The Frequency of Occurrence, Causation and Clinical Significance.**

By R. D. Rudolf, Toronto. This paper contained the results of an investigation carried out in the different hospitals of Toronto. A large number of patients of all ages were examined, suffering from divers troubles, and the angles at the hip and knee accurately measured in over 200 of them. In 162, Kernig's sign was present in 97, that is, in over 60 per cent. It was always absent in perfectly healthy children. Dr. Rudolf considers that a more convenient plan is to extend the knee and then flex the hip as far as possible. Sometimes there is more than the usual degree of stretching of the ham string possible, and this extra flexion can by the writer's method be exactly measured when Kernig's sign could not show it. Of the 97 cases in which Kernig's sign was present, in 59 an angle of less than 165° at the knee could only be obtained, and of these in 10 cases the angle was 135° or less, showing a very marked degree of the sign. These 59 cases were of all kinds and only one of them was meningitis. Dr. Rudolf then went on to state that none of the theories of explanation of Kernig's sign were satisfactory as to its occurrence in meningitis.

Multiple Sarcoma. Report of a Case.

This case was reported by Drs. F. N. G. Starr and J. J. MacKenzie of Toronto. Dr. MacKenzie read the notes on the case. No autopsy could be made of the case. The patient was a female thirty-eight years of age, a seamstress. The personal or family history had no bearing on the case. For a number of years before 1901, the patient had a goitre, which, under treatment, almost disappeared in the winter of 1901. In April

1901, a lump about the size of a pea was noticed slightly to the left of the middle line of the abdomen near the symphysis pubis, hard but painless and subcutaneous. In May two or three appeared in the middle line an inch above the umbilicus; then two or three were discovered in the back. In June two others appeared to the right of the middle line of the abdomen. In July several additional lumps were discovered in the right breast, in size from a pea to a bean. Loss of weight occurred. In August the liver was noticed to be enlarging. Commenced taking arsenic in September. In October a large tumor appeared in the left breast, and a small one was also noticed in the left thigh. Patient began to suffer from rheumatic pains. In November and December the tumors appeared in enormous numbers over the chest and back, abdomen, thighs and arms above elbows, neck and over back, sides and top of head. In January, 1902, chains of tumors, bean sized, were noticed in the cervical region, submaxillary and suboccipital regions. By March the 8th she had thousands of tumors, most quite hard. Excisions were made and microscopic examination revealed a type of spindle-celled sarcoma, in which the prevailing cell was very long. As regards treatment, the patient took arsenic with no influence on the condition. Thyroid extract produced slight diminution in the size of the tumors. Patient died.

Without autopsy one cannot say where the primary seat of the disease was, although from the great involvement of the liver, that might be the source of the disease.

On Some Points in Cerebral Localization, Illustrated by a Series of Morbid Specimens and some Living Cases.

At an early morning session held in the Royal Victoria Hospital, Dr. James Stewart conducted this clinic.

On the Asylum—The Hospital for the Insane—and the Study of Psychiatry.

Dr. Stuart Paton, Baltimore, Md., advocated hospitals or wards in Insane Asylums, for proper treatment of acute cases. He also pointed out the benefits to be derived from having medical men to form a consulting staff to an asylum.

Anesthetic Leprosy.

Two very interesting patients, father and son, were presented by Dr. C. N. Valin, Montreal, according to whom, they proved to a certainty, the contagiousness of this disease. From the way they had progressed under treatment Dr. Valin considered the cases hopeful.

Dr. Burnham read a paper, "A New Departure in the Treatment of Hypopyon Kerato-iritis."

It is the most severe type that his paper deals with, *i.e.*, pus in the centre of the cornea, pus in the anterior chambers, severe iritis and cyclitis. Local remedies are always strongly insisted upon in the treatment advised by all authors. The doctor, however, discards them completely, except dropping in atropine once daily. His constitutional measures are his combined treatment, *viz.*, mercury and the iodide of potassium taken internally, and pilocarpine given hypodermically. The result is most satisfactory and he holds superior in every way to that of the usual treatment. He always draws the attention of physicians to the suggestion that diseases in other organs of an acute degenerative character ought also to be as susceptible to the influence of this treatment as the eye. For further particulars he refers to his articles in the *Archives of Ophthalmology*, *The Ophthalmic Review*, *The Lancet* (London).

SURGICAL SECTION.

SECOND DAY—AFTERNOON.

Report of Three Cases of Congenital Dislocation of the Hip.

By Dr. A. E. Garrow, Montreal. The etiology of this condition is not well established, but heredity seems to play a part. Dr. Garrow spoke of two methods of reduction; (*a*) bloodless method, (*b*) through an incision. The chief obstacle to reduction is generally due to fibrous stricture of the lower part of the capsule. Dr. Garrow's experience has been mainly by the open method. This paper was further discussed by Dr. Shepherd, of Montreal.

The Operative Treatment of Goitre with a Report of Cases.

By Dr. Ingersoll Olmstead, Hamilton, Ont. As the medical treatment of goitre is very unsatisfactory, an operation is recommended in the following conditions: First, as soon as a goitre becomes dangerous, that is when attacks of dyspnea occur, or inflammatory changes occur, or there is the slightest suspicion of a malignant degeneration. Second, all enlarged thyroids having a tendency to grow towards the aperture of the thorax, even if they are movable. Third, goitres that have reached considerable development from the formation of single large colloid nodes. Fourth, when with a moderate goitre, symptoms like those of Basedow's disease appear accompanied with an increased development of the goitre. The operation advised is the one usually performed by Koehler and is done under cocaine anesthesia. It consists of a transverse sym-

metrically bowed incision, with its convexity downwards, from the outer surface of one sterno-mastoid muscle to the other, higher or lower according to the position of the goitre. The skin, underlying platysma and fascia of the sterno-hyoid and sterno-thyroid muscles are reflected upwards. The fascia joining the muscles in the median line of the neck is then divided as well as the outer fibrous capsule of the gland. The half of the gland which is most involved, is then shelled out of its capsule, the superior and inferior thyroid arteries tied, the isthmus cut with goitre clamp and ligated. The remaining attachments are then ligated and portion removed. The wound is closed with a subcuticular wire suture without drainage.

Twelve cases operated on during the past year were reported. The average stay in the hospital was seven days. The resulting scar was very slight, and little or no pain was complained of during the operation.

The Pathologic Prostate and Its Removal Through the Perineum.

By Dr. Alex. H. Ferguson, Chicago, Ill. In opening his paper Dr. Ferguson said he proposed to discuss more particularly hypertrophy of the prostate. Some of the microscopic changes in the hypertrophied prostate are, first, increased weight—may be up to eight or nine ounces; second, greater size; third, any part or the whole of the gland may be involved. Shape varies very much. Microscopically Dr. Ferguson found all hypertrophied prostates were benign in character. He also found frequent evidences of inflammatory changes. The effects produced may be stated as, first, the prostatic urethra is contracted and elongated; second, the vesical meatus is often rendered patulous and sometimes obliterated; third, the ejaculatory ducts are also often patulous, allowing regurgitation of the semen into the bladder, and they are also often obstructed. The effects of obstruction on the kidneys and bladder are too well known to require discussion. Treatment: Dr. Ferguson's method of removal is by the perineal route. He uses a prostatic depressor introduced into the urethra, then elevated in such a manner as to press the prostate down in the perineum. The fingers of the left hand are passed into the rectum as a guide, and then he makes one bold incision through the perineum down to the prostatic capsule. Dr. Ferguson exhibited some special instruments devised and used by himself in this operation.

The Surgical Treatment of Enlarged Prostate.

By Dr. G. E. Armstrong, Montreal. Dr. Armstrong exhibited a specially constructed suprapubic vesical speculum, devised by

himself, with a lateral opening which allows the prostate alone to come well in view in the speculum. The speculum can be packed around with gauze to protect the parts from possible burning, the offending lobe or lobes are then cauterized with the thermocautery. Dr. Armstrong reported seven cases successfully operated on. One point of advantage in this operation lies in the fact that the cauterized surface does not admit of septic absorption. He urges this method in early stages of prostatic hypertrophy.

The paper by Dr. Ferguson, and also that of Dr. Armstrong, was discussed by Dr. James Bell, Montreal; Sir Wm. Hingston, Montreal; Mr. Irving Cameron, Toronto, and Dr. Elder, Montreal.

EVENING SESSION—SECOND DAY.

At the evening session of the second day the "Address in Medicine" was delivered by Dr. Wm. Osler, Baltimore. (See page 552.)

The X-Ray as a Therapeutic Agent.

By Dr. C. R. Dickson, Toronto. Dr. Dickson said the explanation of the rationale of the X-ray is at best as yet but a hypothesis. Fortunately we have a practical proof of its utility as a therapeutic agent in many conditions. Dr. Dickson has used it successfully in the following cases: Nevus, lupus vulgaris, tubercular joints, scleroderma, subacute articular rheumatism (it relieves pain in many cases), neurasthenia, carcinoma of the stomach (this patient gained weight), and in carcinoma of the rectum, which case is also improving.

Dr. G. P. Girdwood, of Montreal, read a paper on "The X-Rays, Diagnostic and Therapeutic," and exhibited a number of photographs.

"The X-Ray in Cancer" was the title of a paper by Dr. A. R. Robinson, of New York. A strong plea is that the X-ray largely does away with the knife, and leaves little scar. It is probable that all superficial cancers can be removed by the X-ray if seen early. In a delicate locality, such as the eyelid, the rays should always be used, as paste or the knife will do more harm. When malignant growths have spread deeply, the X-ray may be considered our best treatment.

SURGICAL SECTION.

THIRD DAY—FORENOON.

The first paper was, "Remarks on the Sympathetic Ophthalmia," by Dr. G. Herbert Burnham, Toronto, followed by a paper on the "Ocular Manifestations on Systemic Gonorrhea," by Dr. W. Gordon M. Byers, Montreal.

A paper on "Excision of the Cecum" was read by Dr. O. M. Jones, of Victoria, B.C. Dr. Jones cited four cases operated on. The first case lived about two years after. A *post mortem* proved that the cancerous growth had not recurred at the point of the original operation. Symptoms in all cases were, griping pains in the abdomen, loss of weight and irregular action of the bowels, together with the presence of a mass in the region of the cecum.

On Three Cases of Perforating Typhoid Ulcer Successfully Operated On.

Dr. F. J. Shepherd, Montreal, reported these cases: First, as to technique. Dr. Shepherd has always made use of the lateral incision and has usually found the perforation near the ileocecal valve. By this incision the site of the perforation is more easily found than by the median. He has always closed the incision by turning in the bowel and making use of a continuous Lembert suture, employing fine silk. Other ulcerations in the neighborhood are treated in the same way. Rubber drainage is employed. There is always suppuration in these cases, and usually a hernia as a result. General anesthesia is always used in these cases. Early and rapid operation, seeing that there are no others likely to perforate. The first case was in a woman of thirty, with ambulatory form. The second was a woman of twenty-eight years, admitted on about the eighth day. It is of interest in this case that although perforation had taken place there was no leucocytosis. The third was a male aged thirty in the third week, seized with severe pain, and one hour after there was obliteration of liver dulness and marked leucocytosis. All are quite well with the exception of hernias.

Dr. Laphorn Smith, of Montreal, presented a paper on "A Case of Total Extirpation of the Urinary Bladder for Cancer." General considerations: Evolution of the operation in Europe and America, methods employed, results in 100 reported cases. In the author's case there had been previous removal of fibroid by myomectomy. This was followed by cystitis, which was treated first by medicine, then by injection, and afterwards by drainage by permanent catheter, and then by button-hole operation, when the cancer was detected by the finger. Extraperitoneal removal of bladder and affected part of ureter and pelvic glands. Recovery from operation, but death on the seventh day from exhaustion.

THIRD DAY—GENERAL MORNING SESSION.

Election of Officers: Dr. T. G. Roddick, M.P., Chairman of Nominating Committee, presented the report of this committee. London, Ont., was selected as the next place of meeting.

President, Dr. W. H. Moorhouse, London, Ont.

Vice-Presidents: Prince Edward Island, James Warburton; Nova Scotia, John Stewart, Halifax; New Brunswick, W. C. Crockett, Fredericton; Quebec, Dr. Mercier, Montreal; Ontario, Dr. W. P. Caven, Toronto; Manitoba, Dr. McConnell, Morden; North-West Territories, J. D. Lafferty, Calgary; British Columbia, C. J. Fagan, Victoria.

Local Secretaries: Prince Edward Island, C. A. MacPhail, Summerside; Nova Scotia, Dr. Morse, Digby; New Brunswick, J. R. McIntosh, St. John; Quebec, R. Tait McKenzie, Montreal; Ontario, Hadley D. Williams, London; Manitoba, J. T. Lamont, Treherne; North-West Territories, D. Low, Regina; British Columbia, L. H. McKechnie.

General Secretary, George Elliott, 129 John Street, Toronto.
Treasurer, T. B. Small, Ottawa.

Executive Council: Drs. Moore, Eccles, and Wishart, London, Ontario.

Dominion Health Bureau: Dr. E. P. Lachapelle, Secretary of the Board of Health of the Province of Quebec, moved the following resolution, seconded by Dr. J. R. Jones, Winnipeg, which was carried unanimously:

"*Whereas* public health, with all that is comprised in the term 'sanitary science,' has acquired great prominence in all civilized countries, and

"*Whereas* enormously practical results have been secured to the community at large by the creation of health departments, under governmental supervision and control; and

"*Whereas* greater authority and usefulness are given to health regulation suggestions when they emanate from an acknowledged Government Department;

"*Therefore be it resolved*, that in the opinion of the Canadian Medical Association, now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate Department of Public Health, under one of the existing ministers, so that regulations, suggestions and correspondence on such health matters as fall within the jurisdiction of the Federal Government may be issued with the authority of a Department of Public Health.

"That copies of this resolution be sent by the General Secretary to the Governor-General in Council and to the Honorable the Minister of Agriculture."

Treasurer's Report : Dr. H. B. Small presented this report. Three hundred and seventeen members had been in attendance, nearly 100 larger than any other previous meeting. All outstanding indebtedness had been paid and there was in the treasury \$325 to the good of the Association. This announcement was received with the greatest satisfaction. Votes of thanks were passed to Mr. and Mrs. James Ross, of Montreal, in whose handsome grounds had been tendered a garden party on the afternoon of the first day, to the Local Committee and Transportation Committee, special reference being made to Drs. C. F. Martin and J. Alex. Hutchison for their indefatigable efforts for the success of the meeting, to the treasurer, the president, and the profession generally for their hospitality. Thus was closed the greatest meeting in the thirty-five years of the Association, and it is to be hoped that the profession throughout Canada will still further take an active interest in the national organization.

Editorials.

THE MONTHLY NURSE'S FEES.

A recent decision by His Honor Judge Morson has created considerable interest. A gentleman living in Toronto engaged a nurse for the expected confinement of his wife, and told her to hold herself in readiness on and after a certain date. One week after the date mentioned the nurse was summoned and looked after her patient in a satisfactory manner. She then rendered her account for services performed, both for her week of waiting and her weeks of service. As payment for the week of waiting was refused the nurse entered suit. There was practically no conflict of evidence. The question for decision was—Should a nurse when engaged for a fixed date be paid for the time of waiting after that date as well as for the time of actual service? The Judge, in his decision, said "yes."

This decision has given general satisfaction to the physicians and nurses of Toronto for more reasons than one. It is thought that a nurse should be paid from the date of engagement, because she is prevented, as a rule, from doing any nursing during the time of waiting. It is also satisfactory to get a decision upon a question which has heretofore been considered somewhat doubtful from a legal standpoint.

It would always be well, however, for the public and nurses to understand each other. The writer had a patient a short time ago who had to pay a nurse for four weeks of waiting and four weeks' of service, *i.e.*, one hundred and twenty dollars. In this instance the nurse felt much more uncomfortable about the matter than the patient, and found the waiting time exceedingly irksome. In addition, she disliked the idea of taking money which she had not earned in the ordinary way.

We have frequently advised both nurses and patients not to make definite arrangements for fixed dates in confinement cases. Some people can ill afford to pay for three or four extra weeks. Again, premature labor or miscarriage may terminate pregnancy weeks or even months before the expected time. In consideration of the various contingencies which may arise, engagements for fixed dates are not always desirable. If, how-

ever, a patient is desirous of obtaining the service of any nurse for whom she has a decided preference, she should be prepared to pay the extra amount for the waiting time as now definitely required by our courts of law.

THE CANADIAN MEDICAL ASSOCIATION.

There seems to be a general consensus of feeling among those who went to Montreal, that the recent meeting of the Canadian Medical Association cannot be described without the use of superlatives. Next to the meeting of the British Medical Association in Montreal in 1897, it was the largest and best medical gathering that has ever been held in Canada. There were 330 members present. The largest number in attendance at any previous meeting was 280 at Toronto in 1899.

There are many reasons why a successful meeting of the Canadian Medical Association should give great satisfaction to the physicians of our Dominion at the present time. It is hoped by many that we are growing to some extent out of our provincialism. The efforts of public-spirited physicians like Roddick and others associated with him to devise some machinery whereby Dominion registration might be substituted for Provincial registration in Canada, have done much to broaden our ideas. The Ontario Medical Council has done much in the same direction during the last two or three years by actively co-operating with Dr. Roddick. We hope that the success of recent years will continue to grow, and that physicians in all parts of Canada will aim at making the Canadian Medical Association the great medical society of our Dominion.

The next meeting will be held in London. Whether the choice of that city was the best we know not. We do know, however, that physicians of London and vicinity are pleased, and will do all in their power to extend a hearty welcome to visiting members, and to make the meeting in all respects a pronounced success. We hope and believe that all the prosperous cities and towns of Western Ontario will gladly give the Londoners a helping hand. The election of Dr. Moorehouse to the Presidency has given universal satisfaction. It is expected that in 1904 we will go out to see our genial and good friends on the Pacific Coast.

Personals.

Dr. Arthur A. Small, formerly of Toronto, has commenced practice in Chicago.

Dr. R. A. Pyne returned to Toronto September 26th, after a pleasant tour in Europe.

Dr. D. W. Montgomery, of San Francisco, spent a portion of his summer holidays in Toronto.

Dr. Walter Proudfoot Thomson, of Toronto, was married to Miss Carruthers, September 30th.

Dr. H. C. Burritt, of Wellesley Street, Toronto, returned home from Atlantic City on September 23rd.

Dr. W. P. Caven has given up general practice, and is devoting his time wholly to consultation work.

Dr. D. Campbell Meyers, of Toronto, is suffering from a broken shoulder blade, the result of a fall while playing polo.

Dr. Vrooman, M.P., of Lindsay, Ont., reached Winnipeg September 10th, on his way home from a tour through the West.

James Roberts, M.B., (Captain Roberts, Army Medical Corps) sailed from New York for England, September 26th. He will probably spend a year at post-graduate work in London and Vienna.

Dr. J. G. Rutherford, the Dominion Government Inspector, was elected Vice-President of the American Association at the meeting in Minneapolis. It is probable that the next meeting of the Association will be held in Ottawa.

Dr. George McDonagh, of Toronto, has just returned from a *flying* trip to England. He left home September 12th, sailed from New York following day by *Campania* for Liverpool, spent a week in London, returned to New York, and reached Toronto October 4th.

Dr. O. M. Jones, of Victoria, B.C., spent a few days in Toronto, as the guest of Dr. Bruce Riordan, after the Montreal meeting. He hopes to see many physicians of Toronto at the next meeting of the Canadian Medical Association in the Far West. It is generally understood the Dominion Association will meet at Vancouver and Victoria in 1904.

Obituary.

BERTRAM SPENCER, M.D., M.R.C.S. (Eng.)

We have to announce with deep regret the death of Dr. Spencer, of Toronto, which occurred, September 28th. After service in the British navy he commenced the study of medicine in Trinity Medical College, Toronto, in 1875, and graduated M.B. University of Toronto, 1879. He then went to England, and after post-graduate study in London became a member of the Royal College of Surgeons. He commenced practice in Toronto in 1880, and was well known as one of the prominent practitioners of this city up to the time of his death. After holding a position on the teaching staff of Trinity Medical College for some years he was appointed Professor of Medical Jurisprudence in the University of Toronto in 1892, and also Associate Professor of Clinical Surgery in 1898. After his appointment to the Chair of Medical Jurisprudence in Toronto University he was made a coroner for the city of Toronto.

Dr. Spencer was possessed of great ability and marked individuality. He especially excelled as a lecturer and clinical teacher. He was highly successful in his professional work, and greatly loved by his patients. As a man he was honest and true in the highest sense of the words. He hated cant and humbug, and was always frank and outspoken in the expression of his opinions as to such things. No words of ours can adequately describe the deep grief of his many friends at the present time. We can hardly realize that dear old Bertram has gone; we can scarcely speak about his death. Yet he was not old—he was only 49; and, until recently, was one of the most healthy looking men in Toronto. As a midshipman and sub-lieutenant in the navy for seven years he was always rugged. He was a good all round athlete, a boxer, a cricketer, and in recent years a golf player.

A terrible calamity befel him in 1900 when his only child died after a rather long illness. Later in the same year he had an attack of septicæmia, from which he never fully recovered. Shortly after this (early in 1901) his wife had a serious illness and for some time was not expected to recover. One year after his child's death his wife was supposed to be dying. What Spencer suffered during that day no mortal knows. Contrary to expectations, Mrs. Spencer recovered and Bertram appeared to be gaining rapidly for a few weeks. Towards the end of the College session, however, he commenced to fail. He was very weak and had glycosuria. He went to England in June

and returned about the middle of September. Shortly after his return he slipped in a trolley car and injured his head. Erysipelas set in and after an illness of a few days he died somewhat suddenly.

I have very pleasant recollections of him, especially in our associations for ten years in the Medical Faculty. We met frequently, he waiting to lecture while I was leaving the lecture room. I generally found him sitting on a certain chair near a certain window. It gave me pleasure to see him—far more than I knew till now. His bright smile and cheery “halloa, old man,” always did me a lot of good. This morning after delivering my first lecture to the final class I entered the faculty room, and instinctively looked towards the chair in the old corner—but Bertram wasn’t there.

JOHN S. TENNANT.

Dr. Tennant, of Lucknow, died at his home, September 11th, aged 60. He graduated from the University of Toronto in 1865. He was one of the most popular physicians in Western Ontario. He was also a prominent Mason, an enthusiastic curler, and an ardent Conservative in politics. The cause of death was cholera morbus.

Correspondence.

CORONERS' FEES.

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—I would like to call the attention of yourself and readers to the low inquest fees chargeable by Ontario coroners. I think they are too low for the time and labor necessary at inquests. I have just finished two enquiries, in one of which there was one adjournment, in the other on two bodies killed in a railway collision with two adjournments, in which some twenty hours' sitting was put in and the total fees only amounted to \$27.60, with preparation and sitting the best part of three days taken up. Many simple cases, without recognizances would not average more than ten dollars, are longer, more important seldom run over sixteen or eighteen dollars. Now, sir, I think the remuneration is altogether too small. I think the affidavit before a magistrate should be \$1.00, taking recognizances, \$1.00 each, every adjournment \$1.00, view of body whether an inquest be deemed advisable or not \$5.00, and mileage twenty cents each way, or would it be better to have a bulk sum? A County Judge gets from \$50.00 to \$100.00 for each Court; why not a coroner acting in like capacity get the same? We have to admit that law as a profession is more awake to its own interests. A lawyer gets a good round schedule fee while the doctor takes the miserable pittance thrown him by insurance companies and fraternal societies at their figures, not his. Why should this be? and why should coroners be content with fees that are not fairly remunerative?

Do you not think that it would be well to form a Coroners' Association to discuss the common interest, and if desirable make such representation to the Government as may lead to a desirable increase?

I think I cannot do better, after calling your attention to this matter, than leave it in the hands of some of our city brethren to take action if they think well of the suggestion.

I am sir, yours truly,

P. PALMER BURROWS.

Lindsay, Sept. 30, 1902.

Miscellaneous.

Epistaxis.

The most positive and dependable remedy we now have for the checking of nasal hemorrhage is the extract of suprarenal gland, or adrenalin. Within a very brief period after applying to the part the mucous membrane becomes blanched and the bleeding ceases. In quite all varieties of capillary hemorrhage from mucous surfaces this method of treatment is highly efficacious.—*The Clinical Review*.

Experiments with Adrenalin.

Elsberg, in *American Medicine*, gives a very comprehensive report of a series of experiments with adrenalin chlorid as an addition to solutions for local anesthesia. He says: "Adrenalin chlorid, which is the active blood pressure-raising principle of the suprarenal gland recently discovered and investigated by Dr. Takamine, is now on the market as an amorphous crystalline powder, or in the form of a 1-1000 solution. It is a powerful astringent, so that a drop of a 1-10,000 solution will blanch the conjunctiva in from thirty to sixty seconds.

"Elsberg has been carrying on a series of experiments with this new drug, and finds that if a drop of a 1-1000 solution be injected under the normal skin a slight burning sensation is felt, but no anesthesia occurs. Within one minute an area of skin about two inches in diameter becomes blanched and almost bloodless, and remains so from six to twelve hours. The same effect will be observed if a 1-5000 to 1-15,000 solution be used, but with these weaker solutions the blanching appears only after a few minutes and disappears after three to six hours. After the blanching of the skin disappears the tissue apparently returns to its normal condition. No deleterious effects, such as sloughing or subcutaneous ecchymosis, ever followed these injections. In the course of the investigations cocain and eucain solutions containing adrenalin in the proportion of 1-5000 to 1-20,000 were used. It was found that the anesthetic properties of the cocain and eucain were preserved, while the adrenalin caused the same blanching of the tissues as previously observed, which extended one to two inches beyond the area infiltrated.

"In performing minor operations under cocain, to which 1-5000 to 1-20,000 adrenalin had been added, only the larger vessels bled when cut across. The smaller vessels were contracted so tightly that no blood could escape from them and therefore there was no oozing. It was unnecessary to sponge off the wound a single time during an operation. The healing of the wound was not interfered with in any way. Upon theoretical grounds it was expected that secondary hemorrhage would take place in from three to twelve hours, as the

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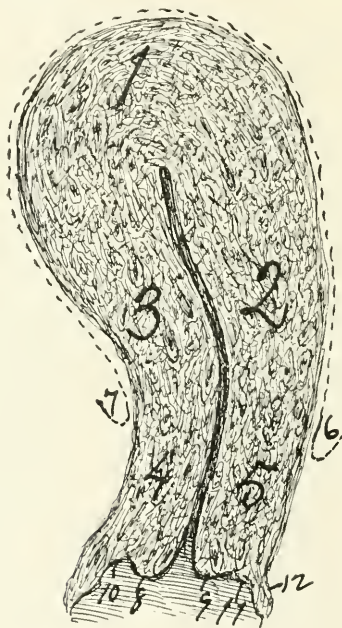
Original Communications.

LANDMARKS IN THE UTERUS.

By BYRON ROBINSON, B.S., M.D. CHICAGO, ILL.

The general functions of the uterus are : 1. Secretion ; 2. absorption ; 3. peristalsis (expulsion) ; 4. menstruation ; 5. vascular ligature ; 6. gestation ; 7. elastic action. Vomiting in early gestation is due mainly to disordered rhythm or wild peristalsis of the uterus, owing to the irritation or stimulation of the fetal ball. The distension of the uterus relieves splanchnoptosis by proximal movement of the viscera. The bladder and uterus in general functionate in unison. The uterus is lodged between the bladder and rectum. It lies distal to the pelvic brim. The round ligament insertion is the line of demarkation between uterus and oviduct. The cavum uteri is triangular and will hold about 15 drops. The uterus is in a normal position when it is perfectly mobile, and dislocated when permanently fixed. There is no single normal position for the uterus, but it has many normal positions through a wide zone of health. The uterus is one of the most mobile of abdominal viscera. It is most mobile dorso-ventral. The corpus has a wide range, while the cervix has a limited range of motion. Fixation of the uterus is due to (*a*) myometritis ; (*b*) peritoneal exudates ; (*c*) tumors or genital ptosis. The degree of importance to be placed on any single uterine dislocation depends on the degree of pathologic symptoms attributed to it. Popularly the two great functions of the uterus are gestation and expulsion. The nerve periphery of the uterus is very large, and hence its reflexes play a dominant role as regards the nervous system. A significant observation is the profound influence of the uterus over the physical and psychical state—over mind and body. Generally the uterus

is considered the central, essential, sexual organ; chief organ of the tractus genitalis. This is a mistake, as the ovary (ovulation and internal secretion) is the primary essential sexual organ, while the uterus and oviducts are the secondary sexual organs, whose practical functions are menstruation, gestation, expulsion and puerperium. It is true, however, that the uterus plays a dominant role in the biological and pathological life of woman. In function the uterus experiences a considerable change and discloses extraordinary activity scarcely equalled by any other bodily organ.



In ordinary uterine functions, such as secretion, absorption and peristalsis, little change is manifest; but in the functional crisis of the uterus, such as menstruation, gestation, expulsion (peristalsis), and puerperium, extraordinary changes are manifest. The uterus of pueritas and senescence is perhaps indifferent in physical and psychical conditions.

The following tables in regard to structure, function, etc., of the uterus will facilitate the comprehension and utility of that organ in the individual economy :

FUNCTIONS...	I.—Endometrium (Tunica mucosa.)...	1. Secretion... } (a) mucous (cervix.) } (b) serous (corpus.)
		2. Absorption.
		3. Ciliary motion.
		4. Menstruation.
		5. Gestation.
	II.—Myometrium (Tunica muscular.)	1. Peristalsis.
		2. Vascular ligature.
		3. Elasticity.
	III.—Parametrium (Tunica fibrosa.)	1. Distributing bed for vessels and nerves.
		2. Functionating, elastic, bed for uterine vessels and nerves.
		3. The parametrium is connected with the pericolicum, periproctium, perivesicum.
		4. Main location along lateral uterine border at the diverging line of the mesometrium.
STRUCTURE...	IV.—Perimetrium (Tunica serosa.)...	1. Absorption.
		2. Secretion.
		3. Elasticity.
		4. Prevents friction in visceral motion.
	General function : (a) Secretion ; (b) absorption ; (c) peristalsis.	
	Special function : (a) Gestation ; (b) menstruation.	
	I.—Endometrium (Tunica mucosa.)	1. Glandular tissue.
		2. Interglandular tissue.
		3. Ciliated, columnar, epithelium cell.
	II.—Myometrium (Tunica muscularis)	1. Muscle cell.
		2. Elastic cell.
		3. Connective cell.
		4. Stratum vasculare.
	III.—Parametrium (Tunica fibrosa.)	1. Pelvic fascia (supporting structure.)
		2. Connective tissue (expanding and contracting, elastic bed.)
		3. The fascial, fatless part protects the large vessels surrounding them with a fibrous sheath as the arteria and vena-uterina and ureter.
	IV.—Perimetrium (Tunica serosa.)	1. Endothelium.
		2. Stomata vera.
		3. Stomata spuria.
		4. Interendothelial lines.
	General structure : (a) Mucosa ; (b) muscularis ; (c) serosa.	
	Special structure . (a) Cervical glands ; (b) corporeal glands ; (c) no submucosa.	

Object : 1, gestation ; 2, expulsion.

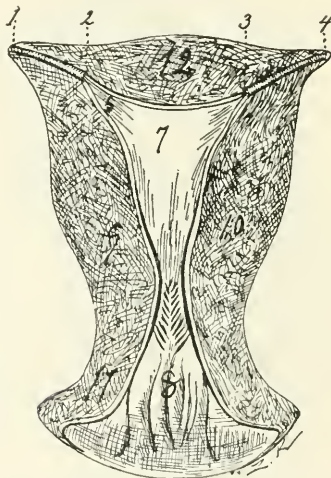
Accessory glands : 1, cervical ; 2, corporeal.

Compositions of secretions : 1, serous (corpus) ; 2, mucous (cervix) ; 3, columnar epithelia ; 4, blood and leucocytes ; 5, placental debris ; 6, endometrial debris ; 7, polypus (myoma) ; 8, malignant ; 9, fetal (debris) ; 10, pus ; 11, acid ; 12, alkaline and 13, neutral.

Neuro-vascular visceral pedicles (mesenteries): 1, ligamentum latum; 2, mesometrium; 3, mesosalpinx; 4, ligamentum rotundum.

Segments: 1, cervix (distalend), located between internal and external os; 2, corpus (middle) located between oviduct and internal os; 3, fundus (proximal end) located proximal to distal entrance of oviduct.

Lymph apparatus: The lymph rootlet exist in the tunica mucosa, muscularis fibrosa and serosa. All the lymphatics of the uterus anastomose. (a) By aid of silver nitrate the lymph channels are easily demonstrable in the serosa. (b) The tunica



fibrosa (subserosa) possesses large lymph channels which are especially noted as long trunks accompanying the artery and vein on the lateral uterine border. (c) The lymphatics of the muscularis are rich, and consist of channels and spaces. (d) The lymphatics of the mucosa consist chiefly of lymph spaces. (e) The lymphatics of the uterus should be divided into those of the cervix and corpus. (f) The cervical branches empty into the hypogastric glands. (g) The corporeal lymphatics also empty in the great group of hypogastric glands.

Blood vessels: The uterine segment of the utero-ovarian artery. It is spiral and courses about half an inch from the

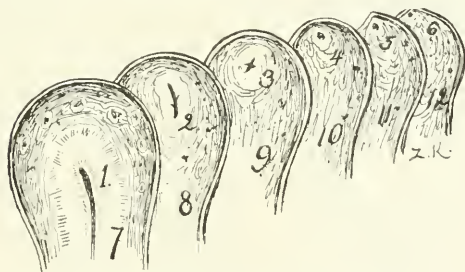
lateral border of the uterus between the blades of the ligamentum latum. It emits the rami laterales uteri, viz.: (a) ramus cervicis; (b) rami corporis; (c) rami fundi.

Nerves: 1, hypogastric plexus; 2, ovarian plexus; 3, automatic menstrual ganglia; 4, utero-vaginal ganglion (pelvic brain); 5, II, III and IV, sacro-spinal.

Fixation apparatus (mesenteries): 1, sacro-uterine ligaments; 2, vagina; 3, pelvic floor; 4, ligamentum latum; 5, ligamentum rotundum; 6, vessels and nerves; 7, perimetrium; 8, parametrium; 9, utero-vesical ligament; 10, peritoneum; 11, cardinal ligaments; 12, abdominal parietes.

Walls: 1, ventral; 2, dorsal; 3, lateral.

Dimensions: Length, 3 inches: breadth, 2 inches: thickness, $1\frac{1}{2}$ inches (resting multipara).



Weight: 1, nullipara, an ounce; 2, multipara, $1\frac{1}{2}$ ounces; 3, menstruation increases half ounce; 4, gestation and puerperal uterus several pounds.

Tissue matrix: (Protecting bed) 1, parametrium; 2, subserosum; 3, the matrix tissue is chiefly lateral.

POSITION.

1. There are two positions of the uterus to consider, viz., a *physiologic* which is perfectly mobile similar to the testicle, enteron, sigmod. *Pathologic*, which means permanently fixed. The uterus is the most mobile of all viscera, and it is in its typical or normal position only when perfectly mobile. It is in pathologic position when fixed.

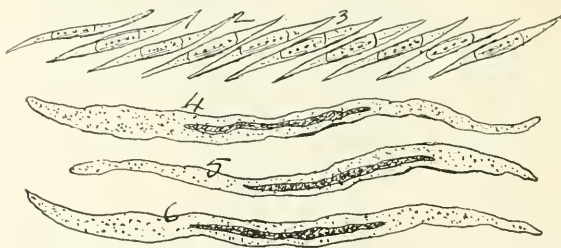
2. The factors which fix or dislocate a uterus are: (a) myometritis; (b) peritoneal exudates; (c) adjacent pathologic structures. I shall present the uterine positions under the following four heads:

1. *Holotomy* (relation to the general body) as regards the

general body the movement or shifting of the entire uterus from its typical position there are a number of technical terms in use, which facilitate the description of both typical and normal uterine positions as, (a) dorsal deviations of the uterus are known as retro-deviation or retro-position. (b) Ventral deviations are termed ante-deviation or ante-position. (c) Lateral deviations are designated as latero-deviation or latero-position (d) Proximal deviations are recorded as uterine elevation. (e) Distalward deviations are recognized as uterine depression.

The above positions *a, b, c, d, e*, may concern normal positions of the entire uterus within the zone of health.

All the holotopic and idiotopic variations of uterine positions are normal, *i.e.*, anatomic and physiologic to a certain grade. As a whole (holotopic), and on its axes (longitudinal, transverse and dorsa-ventral idiotopic) the uterus must be mobile to be in either its normal or typical position. Fixation of the uterus is dislocation.

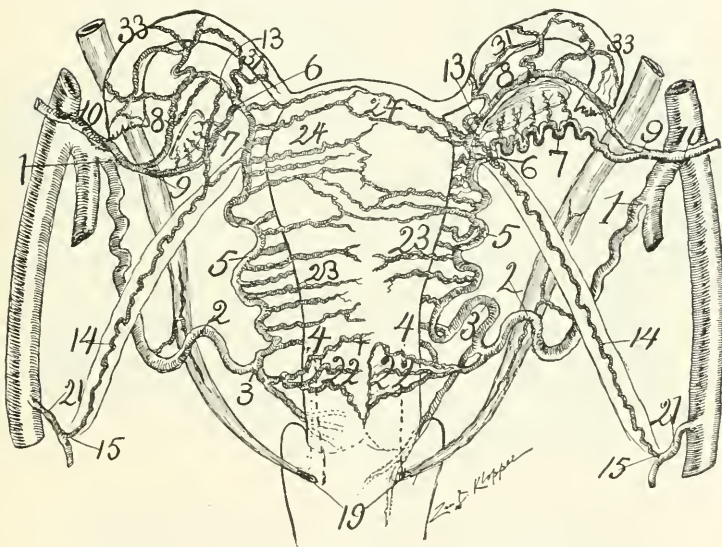


II. *Skeletopy* (relation to osseous skelton).—1. The uterus lies in the middle of the pelvis minor. 2. The cervix lies in the pelvic axis. 3. The os externus corresponds with the level of the 2 or 3 coccygeal vertebra; (b) on a level of the proximal border of the symphysis pubis; (c) the external os is on a level with the planum interspinosum, *i.e.*, the plane between the spinal ischia. 4. The internal os lies about in the centre of the lesser pelvis. 5. In the normal ante flexio-anteversion uteri, the longitudinal axis of the corpus lies in a plane extending from the proximal border of the symphysis pubis to the fourth sacral vertebra. 6. The uterus lies about midway between, and in the centres of the planes of the pelvic inlet and outlet without being in contact with either. 7. The most proximal point of the uterus lies on a plane which cuts the fourth sacral vertebra. 8. The most distal end of the uterus (ventral cervical lip) lies in a plane which cuts the

fourth coccygeal vertebra, and the proximal third of the symphysis pubis.

III. *Syntopy* (relation to the adjacent viscera). The syntopic relation of the uterus may be considered under three heads, viz.: (a) The organs which are divided from the uterus by its serous covering; (b) those organs separated from the uterus by connective tissues; (c) the organs bound to it by organic connections. These three relations are important in a physiologic and pathologic signification.

IV. *Idiotopy* (relation of component uterine segments). The



most important idiotopic relation of the uterus is that of the cervix to the corpus. The corpus uteri moves through a wide zone, especially on a transverse axis through the isthmus uteri. The cervix is relatively fixed. Certain technical terms are employed to designate the idiotopic relations, viz.: 1. If the entire uterus be rotated about its longitudinal axis, it is termed (a) dextrotorsio uteri, or (b) sinistrotorsio uteri. 2. If a transverse axis is passed through the isthmus uteri (*i.e.*, between the corpus and cervix) at the os internum, the ventralward movements

of the corpus on this axis will when corpus and cervix assume a straight line will be (*a*) retro-versio uteri; if the corpus moves dorsalward on the transverse axis until the cervix and corpus assume an angle with each other, the position is a flexio uteri. 3. On a dorso-ventral axis through the isthmus uteri, there can arise a latero-flexio uteri, and (*b*) latero-versio uteri. Flexions, versions and torsions uteri may be combined, presenting complicated positions. In gynecologic practice no importance is to be attached to any uterine position unless it has progressed to such a degree that pathologic symptoms arise from it. Flexions, versions and torsions may represent normal uterine positions when perfect mobility exists. Dislocated uteri (*e. i.*, uteri permanently fixed) are pathologic.

Various conditions influence the position of the uterus, as age and functional relations. In every phase of a woman's life the uterus assumes a different position, as in (1) pueritas, (2) pubertas, (3) menstruation, (4) puerperium, (5) climacterium, (6) senescence. The distention and contraction of adjacent viscera influences uterine positions. Dislocation of the uterus should not be mistaken for uterine disease, as disease (myometritis, peritoneal exudates and pathologic adjacent structures) produces the dislocation (fixation).

Development: 1. It arises from the coalescence of the middle segment of the pronephritic ureters (Müller's ducts). 2. Almost stationary in Pueritas. 3. Rapid development when the utero-ovarian artery springs into activity (in Pubertas). 4. Complete development of myometrium after menstruation, gestation and puerperium.

Number: Single from bilateral coalescence.

Form: Pear shape.

Sphincters: (1) internal os; (2) external os; (3) uterine oviductus

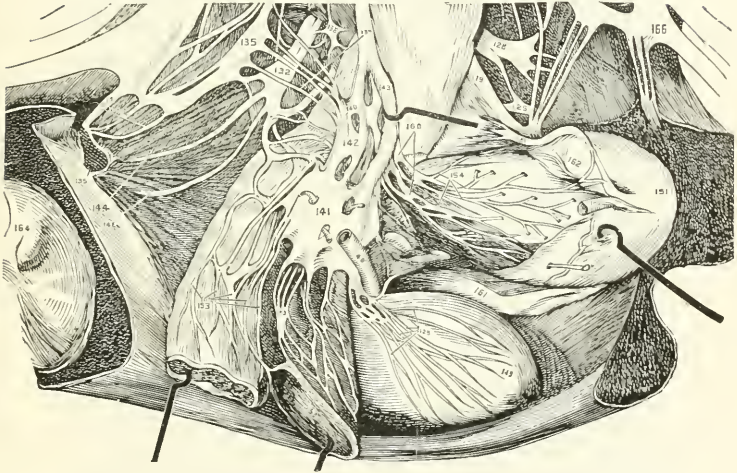
Flexures: Cervico-uterine.

BORDERS.

The borders refer to the middle of the external wall—ventral, dorsal and bilateral. (*a*) The ventral and (*b*) the dorsal borders are free, covered by peritoneum and come under surface, facies uteri, description. (*c*) The lateral border, margo lateralis uteri, is of extreme practical importance in gynecology, as the neuro-vascular uterine pedicle (mesometrium) is inserted on this border line. Vessels and nerves find ingress to the uterus and vessels, with the oviducts round and ovarian ligaments find egress from the uterus at the lateral urine border.

The lateral border is the line of reflection of the mesometrium whence it receives the uterus between its separating blades. The connective tissue, parametrium, which lies between the

diverging blades of the mesometrium on the lateral uterine border serves as distributing, yielding and supporting (fascial) bed for vessels and nerves previous to their distribution in the myometrium. The lateral border of the uterus is important because the uterine segment of the utero-ovarian artery passes in a spiral course between the blades of the mesometrium at from one-fourth to three-fourths of an inch from the uterus. The uterus may be extirpated without severing the utero-ovarian artery, simply severing the rami laterales uteri. Clinically the lateral uterine border is important in differential diagnosis as



to pelvic tumors and as the lymph route for infection (cellulitis phlegmon).

SURFACES.

Surfaces of the uterus, *facies uteri*, mainly refer to the external and internal coverings of the dorsal and ventral walls. (*a*) Externally the dorsal and ventral uterine surface *facies uteri*, is covered by peritoneum and is free. The peritoneum covers the corpus and fundus uteri only, not the cervix, uterine surfaces are free and glide on adjacent viscera with minimum friction. (*b*) Internally the ventral and dorsal uterine surfaces present a continuous mucosa, differing in structure and function in the different uterine segments. The dorsal and ventral mucosa of

fundus and corpus secretes serous fluid. That of the cervix secretes tenacious mucous, the corpus and fundus presents tubular, that of the cervix racemose glands.

DISTAL END (CERVIX OR NECK).

(a) The distal end of the uterus is known as the portio-vaginalis or neck. (b) It is a double sphincter. (c) One third of cervix projects into proximal end of the vaginal ring-like (d). The internal os is the division between external and internal genitals. (e) The distal end of the uterus is fixed to bladder rectum and proximal end of vagina (f). It secretes a tenacious mucous (g). Ovula nabothi appear on the portio vaginalis uteri. (h) It is a guard or sentinel and contains during gestation, mucous plug to prevent ingress of foreigners or egress of deserters (i). It is not rhythmical being chiefly supplied by cerebro-spinal nerves (j). The cervix is never ready for an abortion, while the corpus, always rhythmical, is. (k) The distal uterus is liable to laceration during parturition, especially cervical, bilaterally, in the oligemic cervical zone. (l) The distal end of the uterus is the chief point of fixation of the organ. (m) It is at right angles to the vagina. (n) It has a limited range of motion. (o) The distal end of the uterus is liable to carcinoma (p). It is imbedded in parametrium, especially laterally.

PROXIMAL END (FUNDUS).

1, The fundus is that part of the uterus located proximal to the distal end of the oviductus; 2, it contains an oval ex-oligemic zone; 3, the peritoneum is intimately connected to the fundus; 4, it is the general placental site; 5, it has a wide range of free motion, hence should not be fixed in child bearing subjects; 6, at the junction of fundus and corpus is the main site of myoma in the remnants of the mesonephros; 7, it is the site of sarcoma or carcinoma. It has slight parametrium.

RELATION OF UTERUS TO OTHER VISCERAL TRACTS.

1, The uterus possesses an enormous nerve periphery, hence it dominates the *general nervous system as well as visceral systems*. The chief influence of the uterus over the nervous and visceral system is exercised during its functioning crisis, e.g., pubertas, menstruation, gestation, puerperium and climacterium. Its main relation to the abdominal tracts is through the peritoneum hypogastric plexus, abdominal and pelvic brains, 2, Anatomic and physiologic it is intimately associated with *tractus urinarius* as both tractus urinarius and tractus genitalis arise from the same source—the Wolfian body, having the

same common vessels and nerves. The tractus urinarius shares in altered vascularity with the tractus genitalis during its crisis or during its maximum functions as pubertas, menstruation, gestation, puerperium and climacterium. It is most evident in gestation when renal secretion is disturbed, nephritis, albumen, also in the climacterium when renal secretion is excessive, deficient or disproportionate. 3, The uterus associates closely with functioning *tractus intestinalis*. In times of uterine maximum function its reflex influences may produce excessive deficient or disproportionate peristalsis, secretion and absorption in the tractus intestinalis, in short its object—digestion—is made defective. 4, The uterus holds practically close relations with the *tractus peritonei* both anatomically and physiologically. The peritoneum: (a) is applied to corpus and fundus intimately; (b) does not cover cervix; (c) lateral borders not covered by peritoneum where the vessels enter and find exit. 5, The uterus bears an intimate relation to the tractus vascularis, e.g., (a) hypertrophy of the utero-ovarian artery; (b) hypertrophy of the heart in gestation; (c) congestion (hyperemia); (d) decongestions (anemia, chlorosis), headaches; (e) vasomotor center (flushes) in the climacterium. 6, The uterus influences the centers of the tractus cutis (perspiratorius) as in climacterium (sweatings). 7, It also influences heat centers (flushes) especially in the climacterium. 8, The uterus influences the *tractus respiratorius*, inducing irregular and disturbed respiration.

AGE RELATIONS OF THE UTERUS.

I. *The Three Epochs of Uterine Life*.—1, Evolution (growth); 2, Reproduction (stationary); 3, Involution (parenchymatous atrophy).

II. *Quiescence* (resting)—1, Pueritas, childhood; 2, senescence old age.

III. *Crisis* (functionating)—1, Pubertas; 2, menstruation; 3, gestation; 4, puerperium; 5, climacterium.

IV. *Function* (physiology)—1, sexual function at maximum; 2, periodic hyperemia (utero-ovarian artery); 3, pubertas; 4, menstruation; 5, gestation; 6, puerperium; 7, climacterium; 8, secretion; 9, the above functions are limited to sexual life (12 to 48); 9, during gestation the muscle cell increases ten times and lactation suffers involution; 10, lactation atrophy (involution); 11, ciliated epithelium (distalward fluid stream. Myometrium (peristalsis) and endometrium (utero-ovarian artery) are completely developed by pubertas menstruation, gestation and puerperium; 12, automatic menstrual ganglia completely developed (periodic rhythm); 13, the corporal glands secrete serous

fluid. The cervical glands secrete mucous. Parenchymatous cells, (working cells), muscle elastic, nerve glandular, ciliated are in maximum activity. Connective tissue cells (frame work cells) stationary.

V. *Structure (Anatomy)*: Tractus genitalis begins to fade in structure during climacterium—1, atrophy of parenchymatous cells (functionating cells, muscle, nerve elastic, gland and epithelium cell); 2, increase of connective tissue cell (frame-work cell); 3, the ciliated epithelium disappears; 4, arterio-sclerosis; 5, the uterus diminishes in size, weight and volume; 6, form becomes round; 7, consistence increases; 8, cavum uteri diminishes; 9, canalis cervicis narrows; 10, function gradually ceases; 11, parenchymatous cells decreases in number and size (protoplasm); 12, endometrial folds atrophy and become smooth. The central factor is arterio-sclerosis from diminishing volume of blood in the utero-ovarian artery and consequently atrophy of parenchymatous or functionating cells with excess of proliferation of connective cell.

VI. *Atrophic Degeneration (pathology)*: 1. High grade of parenchymatous (muscle, elastic, ciliated epithelium and gland cell) degenerative atrophy; 2, walls leather like in consistence; 3, arterio-sclerosis, calcification, lumen decreased; 4, the os may become closed (atresia hydrometra, pyometra); 5, myomata may arise; 6, utricular glands may become cystic by closure; 7, uterus atrophies to a minimum; 8, degeneration of parenchymatous (functionating cells) in number and size (protoplasm); 9, multiplication of connective tissue (frame work) cells; 10, ciliated epithelium disappears; 11, all structures of the uterus atrophies, except connective tissue cells; 12, nourishment is defective hence neoplasm, malignancy, ulceration and bacterial disease.

AGE PREDISPOSITION OF UTERUS TO DISEASE.

I. *Pueritis* (condition): Childhood, uterus quiescent; duration 1 to 12 years' growth almost stationary, cervix preponderates, nonhyperemic, secretion minimum, parenchymatous cells (muscle, nerve, elastic, epithelium) nondeveloped.

Results: 1, Bacterial disease (especially gonococcus) and 2, endometritis, minimum.

II. *Pubertas* (condition): Development rapid, uterine function, crisis. Duration 3 years (12 to 15 years) hyperemia and secretion limited, parenchymatous cells (working cells) and vascular development active connective tissue, frame work cells, proliferating, myometrium and endometrium progressively develop, capillus genitalis appears.

Results: 1, From limited hyperemia and secretion arises limited bacterial disease: (gonococcus, streptococcus, staphylo-

coccus and tuberculous bacillus); 2, limited endometritis and myometritis.

III. *Menstruation* (condition): Reproductive, uterine crisis. Duration of each crisis 10 days (*a*) premenstrual phase 3 days; (*b*) intramenstrual phase 3 days; (*c*) post-menstrual 3 days while (*d*) the intermenstrual phase continues 20 days. Menstrual function persists 30 years. Vascular myometrical and endometrical development with periodic hyperemia and secretion characterises this condition. Ciliated epithelium arises with developing utricular glands. Automatic menstrual ganglia springs into active life. Parenchymatous cells make rapid growth. The hyperemia of the uterus in menstruation is shared by the tractus urinarius. Congestion and anemia arise in other portions of the body during menstruation,

Blood and mucous flows from the endometrium. The endometrium doubles in thickness. The swelling of the endometrium is due to (*a*) proliferation of and wandering of leucocytes, and streams round cells; (*b*) elongation and widening of utricular glands; (*c*) serous edema. The mucosa remains intact except local areas of interstitial or submucous hematoma. The ovary, the vaginal and endosalpingial mucosa and pudendum swell.

Menstruation, a maximum function of the uterus is intimately connected with the physical and psychical life of the subject. Menstruation prepares the endometrium to nourish an ovum, menstruations depends to a certain extent on the ovaries and intact utero-ovarian or genital vascular circle.

Results: A healthy tractus genitalis conducts a painless menstruation; hence dysmenorrhea rests on a pathologic base, i.e., congestion and peristalsis induces uterine pain. Painful peristalsis rests on myometritis. Therefore menstruation is the first and most practical function of the genitals regarding age, predisposition to disease as it is the test of their anatomic and physiologic perfection. Periodic preparation of the endometrium exposes it to defects and also to bacterial disease. Since menstruation is so closely related to ovulation as much as possible of both ovaries should be left in situ during surgical intervention. The general results on the uterus from the conditions of menstruation are bacterial disease, recurring at times of periodic hyperemia and secretion with consequent endometritis and myometritis ending in dysmenorrhea, amenorrhea, metrorrhagia.

Results: 1, Bacterial disease active from culture media (*a*) cold consist of a congestion, (*b*) secretion and (*c*) multiplication of existing bacteria); 2, endometritis; 3, myometritis; 4, carcinoma; 5, sarcoma; 6, perimetritis; 7, headache; 8, mastitis; 9, skin eruptions; 10, odor from pudendal glands; 11,

edema; 12, hoarseness; 13, diarrhea; 14, myoma; 15, fetal rests grow (especially the para-ovarium); 16, the majority of menstruating women are ill.

IV. *Gestation* (condition): When it is considered probable that every gestation begins in the oviduct and must be transported to the endometrium within ten days the delicacy of the conditions are apparent. The endometrium in gestation, *i.e.*, the decidua vera soon acquires the thickness of one-third of an inch. The uterus forces the viscera proximal ward. The uterus makes pressure on abdominal viscera, ducts, vessels, nerve apparatus. The ovary enlarges. The oviducts enlarge and is advanced, gestation hang on the lateral uterine border like a man's arms. The size, form and position of the uterus is changed. The pudendal glands secrete active. The muscularis of the bladder hypertrophies. The tractus cutis becomes pigmented (chloasma uterinum), striæ gravidarum, softening and elongation of the pelvic joint connections.

Fetal and myometrial development, likewise rapid development of the utero-ovarian artery. Duration, nine months; function, crisis. Hyperemia and secretion continuous. All parenchymatous or functioning cells (muscle, nerve, elastic, ciliated epithelium and gland) become completely developed; menstruation and, perhaps, ovulation with internal secretion cease. The mucosa becomes transformed to decidua. Fetal motion; uterine pressure against adjacent structures (venous congestion renal action varies); pudendal edema and venous congestion (bluish discoloration.) Muscle cells increase ten fold in size.

Results: 1. Bacterial disease may be active from existing culture media. 2. Endometritis and myometritis may arise, myoma increase. 3. Chronic infectious disease is apt to recur. Deciduoma malignum arises as well as placental degeneration. 4. Peritoneal exudates tend to absorb. 5. The effects of gestation on the tractus intestinalis are reflexes, hyperemesis gravidarum, nausea, constipation, indigestion, malnutrition, excessive deficient or disproportionate absorption, secretions and peristalsis. Auto-intoxication appears. 6. The effects on the tractus urinarius are reflexes; excessive, deficient or disproportionate secretion of urine, albumen, casts, nephritis. The kidney suffers the most of any viscera during pregnancy. 7. The effects on the nervous system are increased irritability, headache, eclampsia. Psychical disturbances are frequent. The muscular system is affected, especially by cardiac hypertrophy, and the uterine muscle cell increases ten fold in size. Malignant disease and tuberculosis pulmonalis is exacerbated. Gestation, a major function of the tractus genitalis, may overstep the zone of health. The organ of taste is apt to become deranged.

The mammary gland is vigorously affected. Osteomalacia is exacerbated.

Results: Gestation temporarily relieves splanchnoptosis. From uterine pressure viscera are compromised, ducts and vessels obstructed, and nerve apparatus traumatized. From the delicate transportation of the ovum from oviduct to uterus oviductal gestation may arise. From the thick, succulent endometrium bacterial and other diseases may occur. Proximal movements of the pregnant uterus relieves splanchnoptosis. Uterine pressure obstructs ducts and vessels (especially veins) compromises viscera, and alters nourishment, *e.g.*, distasis of the muscoli recti abdominales. It produces irritability of the nervous system. The increase in volume of the distal end of the genital tract from vascular stasis produces active pudendal glandular secretion, and exposes it to bacterial invasion. The elongation of the pelvic joint ligament produces the waddling duck like gait compromising movement, yet increasing the pelvic osseous outlet. Parturition predisposes to disease by trauma, infection, hemorrhage, uterine rupture, eclampsia and fatal shock from uterine inversion or invagination.

V. Puerperium (condition): Uterine involution; duration two to three months; hyperemia and secretion active. Ciliated epithelium, endometrium, utero-ovarian artery and myometrium (parenchymatous cells) completely developed. Placental site is an endometrial wound. Relaxed abdominal wall. Trauma of labor produces numerous solutions of continuity. Tractus genitalis has relaxed supports.

The peritoneum lies folded and loose on the uterus. The uterus in a few days resumes its ante-version. Immediately after parturition the corpus is solidly contracted, the cervix is slack or flaccid. The os uteri externum represents a transverse slit, remaining patent for about a month; ovary and oviduct resume their usual position in about a month. The puerperal lochia is at first pure blood, later blood mucous, still later mucous, and finally serous. The lochia continues about six weeks. Involution of the parenchymatous cells (muscle, nerve, elastic, ciliated, epithelium) are practically complete in eight weeks.

Result: 1. From active hyperemia and secretion there are maximum culture media, hence (1) bacterial disease active; (2) patient has an endometrial wound at placental site, hence endometritis and myometritis, peritonitis; (3) trauma, predisposes uterus and mammae to malignancy and inflammation; (4) distension of the abdominal walls predisposes to splanchnoptosis by (a) relaxed abdominal walls, (b) consequent distalward movements of viscera, and (c) gastro-duodenal dilatation from compression of transverse segment of duodenum by superior mesenteric artery,

vein and nerve; (5) relaxed abdominal walls induces constipation, compromises lymph and blood circulation, traumatizes nerve periphery and compromises canalization of viscera; (6) lactation atrophy may occur and the endometrium become a *locus minoris resistæ*; and (7) uterus not immune against trauma. The puerperium is practically a pathologic state; function has passed beyond the zone of health. In puerperium the myometrium contracts more rapidly than the utero-ovarian artery; hence the artery is thrown into a marked spiral state, and its walls are thick. The uterine muscular bundles with the elastic fibers act like living ligatures to contract the blood vessels. A puerperal uterus being exposed to infection is liable to subinvolution, *i.e.*, bacterial disease. The slack or flaccid cervical wall following parturition, endangers the uterus to infection. The patent os results in ample drainage, but allows bacterial invasion. Puerperal lochia endangers the multiplication of bacteria. The uterus is somewhat larger after parturition, hence liable to be forced distalward and be compromised in circulation. The nursing child aids uterine involution.

VI. *Climacterium* (condition): Ceasing uterine function. Function, crisis, duration three years (45 to 48) irregular hyperemia and secretion limited. Atrophy of parenchymatous or functioning cells (muscle, elastic, nerve ciliated and glandular epithelium). Increase of connective tissue or frame work cells. Arterio-sclerosis, defective nourishment. As death is manifestly more strong than birth, so the dying climacterium manifests more nerve storms than the developing pubertas.

Results: 1, Bacterial disease; 2, endometritis; 3, myometritis; 4, prolapse, sacro-pubic hernia from (atrophy) relaxation of uterine supports; 5, the heat center (flushes), the vascular center (flushes) and the perspiratory center (sweatings) are disturbed; 6, trauma of parturition (instrumentation) and atrophy of endometrium (lack of nourishment) predispose uterus to carcinoma and sarcoma; 7, trauma of lactation induces mastitis and malignancy of the mammae; 8, skin eruptions, pigmentation and diseases; 9, visceral disturbances (circulation, secretion, peristalsis) from reflex irritation in uterus due to atrophy of hypogastric plexus and automatic menstrual ganglia; 10, obesity; 11, growth of hair on face; 12, mental anxiety; 13, *locus minoris resistentiæ* in the endometrium; 14, myoma; 15, pruritus pudendæ; 16, not immune against trauma; 17, irregular hemorrhage; 18, the climacterium neurosis is alleged to be due to lack of internal ovarian secretion.

VII. *Senescence* (condition): Old age, uterine quiescence, cessation of uterine function; duration from the forty-eighth year until termination of life; non-hyperemic, secretion minimum, and hence bacterial disease minimum; atrophic degen-

eration (pathologic) of parenchymatous cells, (muscle, nerve, elastic, ciliated epithelium, glandular). Parenchymatous cells decrease in number and size (protoplasm), relative increase in connective tissue cells. Arterio-sclerosis and calcification, defective nourishment.

Results: 1. Bacterial disease at a minimum from nonhy-peremia and minimum secretion; 2, endometritis; 3, myometritis; 4, the endometrium is the locus minoris resistentiæ from desquamation of epithelia; 5, proliferation of connective tissue cells; 6, pathologic degeneration of parenchymatous cells (muscle), elastic gland ciliated epithelium; 7, sarcoma; 8, carcinoma; 9, arterio-sclerosis calcification, defective nourishment; 10, myoma; 11, sacro-pubic hernia (prolapse); 12, pruritis pudendi.

Vital: 1. Not necessary to life; 2, conduces to health.

PATHOLOGY.

I. *Endometrium* (tunica mucosa): 1, endometritis glandularis; 2, endometritis interstitialis; 3, carcinoma; 4, sarcoma, and 5, tuberculosis.

II. *Myometrium* (tunica muscularis): 1, myometritis; 2, myoma, (a) submucosa, (b) subserous, (c) intramural; 3, sarcoma.

III. *Perimetrium* (tunica fibrosa): 1, cellulitis; 2, phlegmon; 3, cicatrices.

IV. *Perimetrium* (tunica serosa): 1, peritonitis; 2, sarcoma; 3, Carcinoma, and 4, tuberculosis.

Bibliography: W. Waldeyer, W. Nagel Gebhardt, F. Friedmann.

FIG. 1 (Author).—The uterus bisected longitudino-transversely. 1, Peritoneum (tunica) serosa; 2, longitudinal superficial muscular layer; 3, 4, 5, other layers of the myometrium; 6, represents that portion of the myometrium into which the utricular glands penetrate more or less; 7, endometrium with its various glands; 9, cavum in uteri; 10, cavum cervicis. There is no submucosa.

FIG. 2 (Author).—Pelvic brain 141 and 142. Note the nerves passing from Nos. III and IV sacral nerves (132) and (135) to the pelvic brain from which they emerge to enter the uterus (154), bladder (125), vagina (155) and rectum (153).

FIG. 3 *Circulation of Uterus* (Author).—The uterus was injected with red lead and starch, after which Dr. H. Pratt took an X-ray. From this model the artist, Mr. Klopfer, sketched. Dr. Wm. E. Holland magnified the X-ray to facilitate accurate drawing. 1, 2, 3, 4, 5, 6-8, 9, and 6, 7, 9, represents the utero-ovarian artery; 22, 23, 24, rami laterales uteri; 6, 8, 9; 6, 7, 9, represents the ovarian vascular circle; 1, origin of uterus artery; 2, arterio ureteral (distal) crossing; 2, 3, 4, cervical loop; 25, arteriæ vaginales; 19, distal ends of ureter; A, B, C, anastomoses of rami laterales uteri.

FIG. 4 (Author).—The myometrium cut in a sagittal longitudinal direction; 1, 2, 3, corporeal myometrium; 4, 5, cervical myometrium; 6, 7, peritoneum (perimetrium) passing from the myometrium at the same level anterior and posterior.

FIG. 5 (Author).—11, horizontal sections of the uterus of a multipara to demonstrate the circulation in the myometrium. The uterus was injected with red lead and starch, X-rayed in Dr. Harry Pratt's X-ray and electro-therapeutic laboratory, magnified by Dr. Wm. E. Holland, and sketched from this as a model by Zan. D. Kloppe; 1 is the cervix and 11 is the fundus.

FIG. 6 *Junction of Endometrium and Myometrium* (Author).—1, margin between the superficial straight parallel glands and the deep irregular layer of glands; 2, muscle penetrating between the glands; 3 and 5, lumen of deep layer of glands; 4 and lumen of straight layer of glands; 7, stroma of endometrium; 9, 10 and 12 venous channels. Note that there is no submucosa; no barrier between endometrium and myometrium.

FIG. 7 (Byron Robinson).—Illustrates a variety of intramural segment; 1 to 2 is the left, and 3 to 4 are the right intramural segments of the oviduct; 5, the funnel-shaped process as it leaves the uterine cavity to become the uterine horn; 7, the cavum uteri; 8, the cervical cavity with its folds; 9 and 10, the coporeal myometrium; 11, the cervical myometrium; 12, the fundal myometrium. The intramural oviducal segment is relatively long in this case. In drawing this cut a suggestion from Hennig was employed. The horn is not so regular as it appears. In following a series of microscopical sections through the horn one finds that the (*a*) utricular glands are somewhat irregular, (*b*) the myometrial wall is irregular, and (*c*) occasionally utricular glands are displaced. This uterus has the shape of a multipara, especially as regards the horns.

FIG. 8 (Byron Robinson).—1, 2, 3, muscle cell of non-pregnant uterus; 4, 5, 6, muscle cell of pregnant uterus.

FIG. 9 (Author).—Illustrates the orificium uterinum oviductus and the intramural segment; by making serial sections 1, 2, 3, 4, 5, 6, presents the sections with the appearance of the oviducal orifice; 7, 8, 9, 10, 11 and 12, myometrium.

FIG. 10 (Author).—A dissection of a subject about 47 years old, demonstrating the capacity of uterine myometa to retain the full strength of the rami laterales uteri (22, 23 and 24); 2, 3, 4, cervical loop; 2, distal arterio-ureteral crossing 19 distal ends of ureters.

INSANITY, ITS CAUSES AND REMEDIES.*

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Insanity, its causes and treatment, is a subject so pregnant with scientific thought that one may well shrink from the attempt to present a popular review of the subject before a mixed audience such as I see before me to-day. My only apology for undertaking the task is the hope that I may be instrumental in removing some of the popular fallacies existing in the public mind on the subject, and of giving a clearer conception of the great natural laws in operation which govern the maintenance of both mental and physical health.

The time has gone past for blaming Providence for every visitation of ill health and of invoking Divine intervention for its restoration. It is true there is a limit to the span of life, but if the laws which govern health were thoroughly observed people would die of old age and not from disease. Every departure from normal health means a violation of natural law, either on the part of the individual so affected or his ancestry. Neither natural nor moral law can be violated with impunity. The penalty will be exacted with inexorable sureness, and will be in direct ratio to the gravity of the offence.

CAUSES OF INSANITY.

To discuss the causes of insanity in their entirety would mean an exhaustive enquiry into the history of the race from primitive times up to the present complex conditions of modern civilization. It will be sufficient for our purpose to point out in general terms a few of the potent causes which are at work in the process of mental alienation. We must not forget that our present boasted civilization is but of yesterday, comparatively speaking, and that we have attained it by a gradual process of evolution reaching back through the long vista of the past.

The human race of to-day is the expressed sum of all the good, bad and indifferent that have ever existed in the world from the beginning. We cannot ignore the great laws which govern the propagation of species: degenerates beget degenerates and criminals beget criminals with inexorable exactness. "The sins of the fathers descend upon the children." "The fathers have eaten sour grapes and the children's teeth are set on edge." These laws are as true to-day as they were under

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the ancient Jewish economy. We are constantly reminded of our savage ancestry and nature's tendency of reversion to ancient types by the human degenerates born into the world in spite of the best breeding and most careful training. We are so recently removed, comparatively speaking, from barbarism that nature is still unstable in transmitting her more recently acquired types of character, and it is no wonder that once in every two or three hundred births a lunatic, an idiot, or a criminal is born into the world. As time rolls on and the present rate of progress continues nature will show greater stability in transmitting improved types, and thus the race will tend to reach a higher plane of mental, moral and physical excellence. This gradual ascent of the race will be greatly accelerated or retarded in proportion to the constancy with which these great natural laws are applied or subverted as the case may be.

If the above theory of transmission be correct then there can be no doubt that heredity is the chief cause of insanity and every other form of mental degeneracy.

The popular opinion of the day is that the vast increase of insanity is due to the restless spirit of the age, the intense competition in business and the breakneck struggle for wealth, place and power. It is believed that the consequent exhaustion resulting from this overtax on the brain is the cause of widespread mental disorder. That there is an element of truth in this opinion no one will deny, but to rank it as the great predisposing or exciting cause of insanity, is nothing short of a popular fallacy. Experience, however, proves that the educated classes, the busy, strenuous men of affairs who propel forward at such a rapid pace the great industrial, commercial and social forces in the world, do not figure prominently in our asylum statistics. It is abundantly proven that the mass of the registered insane come from the uneducated lower stratum of the people, the raw material as it were of society—the class whose brains are not developed by intellectual effort. As an example take the statesmen, literary men and poets of Great Britain, who maintain their mental vigor up to fourscore years or more, while the common laborer whose brain is undeveloped, is in his dotage at sixty, and ripe for the workhouse or the asylum.

It cannot be denied that a large percentage of the human family is born into the world so weakly endowed mentally as to be wholly unfit for anything but the most primitive form of citizenship. With a quiet and uneventful environment which does not unduly tax their mental energies, they manage to pass through life in the undisturbed possession of their meagre mental outfit with comparative ease and comfort, but the moment they are subjected to the strenuous, complex conditions

of life which require greater mental and physical activity to gain a subsistence, they weaken and falter by the way and go to swell the dependent and degenerate classes of the community.

MASTURBATION.

In the popular mind the secret vice of masturbation is regarded as the most frequent cause of insanity. That it is a potent cause of mental degeneration no one will deny, but here again popular opinion needs correction. Large experience among the insane proves that the persistent practice of the habit is rather the evidence of mental weakness than the cause. In the early stages and before the habit is confirmed, much may be done to counteract its debasing effects by well-directed advice, elevating social environment, and the encouragement of outdoor, manly sports.

The victims often belong to the gentle goody-goody class of young people on whom indulgent parents dote and who are loathe to believe them guilty of such a degrading habit. A great responsibility rests with parents, guardians and teachers in frankly discussing this question and of giving proper warning against its terrible consequences.

SYPHILIS.

The scourge of syphilis has been the most deadly enemy to the upward progress of the human race. Its disintegrating power in destroying human life has been greater than even pestilence or the sword. Millions upon millions of the unborn who have never seen the light of day have been sacrificed in utero by embryonic infection to gratify this insatiate Molloch of death. Acquired in one generation it insidiously propagates itself to another generation, until who can tell where its pernicious influence begins or ends.

It masquerades under so many unexpected guises that it often baffles and eludes the skill of the most expert diagnostician to differentiate it. Its peculiar affinity for attacking the brain and nervous system is one of the marked features of its history, and yet it is only of recent date that the psychologist has discovered its potency as a factor in producing insanity. That fatal form of insanity known as general paresis, popularly called softening of the brain, is now recognised by the highest authority as due to this virulent poison.

ALCOHOLISM.

It is a well attested fact that the regular and immoderate consumption of alcohol acts as a virulent poison to the human system. Its baneful effects are especially manifest upon the

brain and nervous system, and sooner or later, if the habit is persisted in to excess, leads to mental impairment.

Alcohol insanity is a well recognized form of mental alienation, and its victims are to be found largely in towns and cities where the drinking customs are most prevalent. The chief danger of the drink habit lies in the insidious inroads which it makes upon the mind of the deluded victim. There is a gradual process of mental impairment, which he is incapable of realizing, and which quite unfits him for seeing himself as others see him. His moral perception becomes dulled and his reasoning sense so defective that all appeals to him for reformation are in vain, and he gradually degenerates stage by stage into a physical wreck and a mental imbecile. Every subject of chronic alcoholism is *de facto*, if not *de jure*, insane, and should be confined in an institution for treatment. In recent years the gold cure treatment has been the panacea for the cure of drunkenness. It is all humbug, there is no medicinal specific for its cure, the true and only remedy is complete abstinence from the poison, and this can only be done by enforced discipline and treatment in an institution appointed for the purpose.

MENTAL WORRY.

It is worry and not work that kills and drives thousands of people every year into the asylums or into untimely graves. The disposition to incessant or unnecessary worry is always evidence of mental weakness. Some people are always crossing bridges before coming to them, and living in constant fear of the day that never dawns. The habit if not checked becomes a disease, and woe unto the unhappy household that has such a member to care for.

A great variety of causes contribute to unbalance the mind, such as disappointment, bereavement, loss of money, thwarted ambition, failure in business, poverty and the hard struggle for existence.

Some people are so richly endowed with a vigorous mental organization that they are able to withstand all the losses and crosses of life with comparative ease and like a rock in mid-ocean they stand immovable while the waves of adversity and disappointment dash against them with impunity. Such an inheritance of mental vigor is more to be envied than rubies and pearls or all the gold of the Yukon.

REMEDIES.

I have no specific to offer for stemming the ever-increasing tide of mental degeneration which flows in upon us like a flood. The remedy lies in the gradual evolution of the race, through the dissemination of more correct knowledge of the laws which

govern health. There is a lamentable amount of ignorance, or at least indifference, of the laws which govern the propagation of the race. How strange it is that people are so fully alive to the necessity of careful selection in the breeding of the lower animals, and ignore the same laws in the breeding of the human race. Theories have been advanced from time to time looking to the amelioration of this condition. State enactment has been advocated for the regulation of marriage which would prohibit those close of kin and the whole class of degenerates from marrying. Others go still further and advocate the asexualization of the mentally weak, and the incorrigible criminal as well. Others have advocated the erection by the State of sufficient buildings to accommodate the whole of the defective classes and make their detention compulsory for life. This plan is advocated not only on humane and social grounds, but for economic reasons as well. They claim it would not only tend to elevate the race, but would ultimately be a paying investment by drying up the perennial stream at the fountain, and in time lessen the burden of taxation.

There is a certain amount of reason and common sense in these theories if they could be enforced, but experience proves that all legislative enactment which interferes with the social customs and habits of society are evaded and ignored.

The true remedy lies in more correct knowledge of the direful effects which follow from ignoring the great natural laws which govern the propagation of the race and the suffering which it may entail on unborn generations. On the other hand, it may be said if there were no weaklings and dependents in the world there would be no field of operation for that altruistic, charitable spirit which is the pride and glory of modern civilization.

A large proportion of the insanity in the world is due to secret vice and perverted modes of living, which drain the vital energies and impair the mental function. The brain is exceedingly complex and many-functioned organ and is capable of extraordinary development along physiological lines.

As the brain is the organ of mind, it expresses itself to its environment in direct ratio to the integrity of its composition and the healthfulness of its function. A diseased brain expresses itself in diseased thought, will and action, which is insanity. All rational methods of treatment must consist in discovering the causes which have contributed to that disordered condition and must be followed by a complete reversal of the mode of living which has provoked it. The patient must be placed in a new environment where discipline is enforced and with a complete surveillance of the habit of life. Many people have the idea that insanity can be cured with medicine. This

is a great mistake, it has its place in mental disease as in every other form of disease, but there is no medicinal specific for its cure.

The sheet anchor methods of treatment are labor, recreation and rest, with plenty of fresh air and a liberal *regimen*. A large proportion of patients sent to the asylum suffer from malnutrition and sleeplessness. The first indication of treatment is to restore the nutritive function and induce sleep. When that is done the patient is already on the road to recovery.

“Let me have men about me that are fat,
Sleek-headed men and such as sleep o’ nights,
Yon’ Cassius has a lean and hungry look,
He thinks too much ; such men are dangerous.”

CASE OF INTESTINAL OBSTRUCTION.

BY EVERETT S. HICKS, PORT DOVER.

I am sorry that I am not able to record a recovery in the following recent case of intestinal obstruction, more especially when a recovery would have been assured had I been allowed to make a timely interference:

Mrs. M—, aged 69, fairly strong woman holding her age well. History of an attack of general peritonitis of six weeks' duration some ten years ago. No cause for this attack was given by the attending physicians. Patient has been failing steadily in health for six months.

Sept. 29th.—Complains of pain in the region of the umbilicus. Abdomen hard and tense in epigastric and upper umbilical regions. Patient straining and vomiting; temperature normal; pulse 84; bowels moved yesterday; patient feels nauseated and weak. Examination and questioning reveal the presence of a prolapsed uterus which patient retains with a bandage, and also a right femoral hernia, a small part of which is irreducible. This hernia has existed in its present state for over twenty years. No pain is complained of in the region of the hernia, but which constitutes the bulk of the mass is full of gas and easily replaceable. Uterus is freely movable. Ordered hot poultices, a liquid diet and rectal feeding with peptonized milk and gave strychnia with atropine and normal saline solution throughout the attack. Morphine was very sparingly used to control severe pain only.

Sept. 30th, morning.—Patient still vomiting. Had a passage of blood during the night. Evening—Pain easier; vomited once; pulse 108; rupture down, easily replaceable.

October 1st, a.m.—Better; pulse 96, full, strong. Bowels moved five times during night; still vomiting. P.m.—Not so well; vomiting continuous; nothing retained by the mouth.

Oct. 2nd.—Vomiting severely a greenish fluid. Chloretone given in 3-grain doses and was quite effectual in giving ease from pain and vomiting.

Oct. 3rd.—Nausea continuous. Chloretone keeps down vomiting to three or four times a day; pulse 80; bowels *nil*; temperature normal. Oct. 4th and 5th—condition same.

Oct. 6th.—Fecal vomiting marked; no great bloating or tenderness; rupture down at intervals, but can be easily put back.

Oct. 7th.—Bowels *nil*; pulse 108; thirst incessant. Advised consultation with a view to an abdominal section.

Oct. 8th.—Bloating increased, during night patient in great agony; in early morning she passed large volumes of gas by the bowel with relief of pain and distension; vomiting continues; pulse 108; skin has fecal odor; urine plentiful but high colored. Oct. 9th—same condition.

Oct. 10th.—Vomiting fecal. Urged an abdominal section or an opening on the side of the hernia, as it has appeared to be above the obstruction. Relatives not in favor of any operative measures.

Oct. 11th.—Same condition; hernia same; pulse 108.

Oct. 12th.—Hernia could not be reduced to-day; complained of pain there; bowel in hernia full of gas; patient weaker and flesh going rapidly. Again insisted on an enterostomy and was refused.

Oct. 13th.—Hernia inflamed; condition same.

Oct. 14th, Morning.—Almost pulseless. Friends at this, the eleventh hour, consented to an opening being made. Used Kelene spray and opened skin and bowel in one stroke. Bowel inflamed but not gangrenous, well adherent to sac throughout; fecal matter of bad odor escaped freely. Afternoon.—Feces have been pouring out steadily, requiring dressing every few minutes. Over a pail of feces must easily have escaped during the day; pulse 100, weak and thready, but no more vomiting; retains some nourishment by mouth; is very drowsy, almost comatose.

Oct. 15th.—Patient died 6 a.m. Feces still escaping freely.

No *post mortem* was allowed and on that account I am unable to give any idea of the cause. From a study of the case I would throw out the hernia as a cause entirely, looking to old peritonitic adhesions to intussusception or to cancer, as she had previously failed in health. Some thickening could be felt about the umbilicus, though it was not definite enough to give one a probable cause. It is probable that the motions of bowels recorded in the first two days came from below the obstruction. When we remember that usually such a case proves fatal in from three to six days (Osler) we must regard this as an unusual ease.

NOTE.—(1) No movement of the bowels and the presence of acute obstruction for fourteen days, and probably no real relief of the obstruction for fifteen days. (2) That the formation of an artificial anus at the site of the rupture would have been an easy and successful operation. Where a rupture is present and the bowel in it is distended, an enterostomy at the site of the hernia should be considered. (3) As a therapeutic measure chloretone might at times be made to replace morphine; for three days it was a great aid in this case.

Society Reports.

TORONTO CLINICAL SOCIETY.

The first regular meeting of the Toronto Clinical Society for the season 1902-3, was held in St. George's Hall, Elm Street, on the evening of the 8th of October.

Dr. Edmund E. King, the President, occupied the chair.

On the meeting being called to order Dr. King delivered the annual presidential address. He made a feeling reference to the loss the society and profession generally had sustained through the recent death of one of the members, Dr. Bertram Spencer. He then proceeded to discuss and outline the work of the society for the current year, appealing for the hearty co-operation of the members in this respect. After this introduction Dr. King took up the consideration of the prostate gland, its affections and treatment therefor, presenting in an exhaustive and able manner a detailed review of the whole subject of prostatic surgery. At the conclusion of his very instructing address the president was accorded a hearty vote of thanks, moved by Dr. Oldright and seconded by Dr. Grasett.

Excision of the Upper End of the Humerus for Myeloid Sarcoma.

Dr. G. Silverthorn presented this patient, a child of eleven years of age, and read notes on the history of the case. This girl, who was of a well-nourished and healthy appearance, came to him complaining of difficulty in the right arm. An examination of the arm showed that it was held firmly fixed at the shoulder joint, with resistance on any attempt being made to move it in any direction. The upper end of the humerus was very much enlarged, which was well shown by a skiagraph. No fluctuation or egg-shell crackling was to be made out. The diagnosis lay between sarcoma and tubercular disease. In the excision the lowest fibres of the pectoralis major were left, and a good result has been obtained. The wounds healed by first intention. The girl has now a fair amount of control over the extremity.

This case was discussed by Drs. Grasett, Oldright, Anderson, Bruce and the President.

Nose Building with Paraffin.

Dr. D. J. Gibb Wishart reported this case. After referring to the work which had been done in connection with this

subject, Dr. Wishart reported his case. The patient was a young girl about seventeen years of age. He used a mixture of paraffin and vaselin at a temperature of 112 degrees. His object in using high temperature was to avoid any possible molding of the paraffin. At least 110 should be used in these cases. It was injected by a large hypodermic needle with an ordinary piston syringe, and was injected from above downward. The injection not attended by any rise of temperature. Cocaine was not used, and no amount of congestion followed.

Drs. Ryerson, Boyd, Fenton and Silverthorn discussed this case.

Pathological Specimens.

Dr. Grasett presented the sac of a femoral hernia which he had removed from an elderly lady that day.

Dr. H. B. Anderson presented two specimens. The first was a trauma rupture of the ileum about twelve inches from the ileo-caecal valve, occurring in a man who had been scuffling. The second was secured from a case of gonorrheal endocarditis. Dr. H. A. Bruce showed double pus tubes operated on that day.

GEORGE ELLIOTT,

Recording Secretary.

TORONTO NURSES GRADUATE.—The graduating exercises of the Training School for Nurses in connection with the Toronto General Hospital were held October 10th, when eight graduates received their diplomas. The superintendent, in her annual report, stated that since the establishment of the training school, twenty-one years ago, there had been graduated from it 355 nurses, sixty of whom were now in other hospitals and institutions in positions of responsibility. Dr. George A. Peters delivered the address to the graduating class, while Dr. Charles O'Reilly, medical superintendent of the hospital, presented the diplomas.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

The Evil results of Internal Antisepsis—Mercury and Typhoid Fever.—(*Bulletin of the Academy of Medicine.*)

Robin, in 1892, reported to the academy the case of a syphilitic woman who, after a vigorous treatment by corrosive sublimate lasting thirty-six days, was attacked by an infectious broncho-pneumonia of such severity that she died in less than four days, having had most pronounced symptoms, which were not in the slightest degree relieved by the most active therapy. That case, which might be called a real laboratory experiment, proved that the method of internal antisepsis, which consists in saturating the organism with the most energetic antiseptics, in order to prevent a microbic infection, or to moderate the germination of the micro-organisms or to attenuate their virulence, is not applicable in therapy, however scientifically rational it may seem. Indeed, from that case the inference was drawn that the presence of mercury in the organism, far from lessening the microbic activity, was a preponderating cause of the severity of the broncho-pneumonia. This conclusion is strengthened by a case which Robin has recently reported from his clinic in the *Hospital della Pitié*. The latter case forms a new and decisive proof not only of the uselessness, but of the harmfulness, of internal antisepsis.

The case was one of typhoid fever, ending fatally, in a young woman of 25 years, who in August of last year had contracted syphilis. When she entered the hospital she had a typical secondary syphilis, with an intense roseola, cervical adenopathy, and mucous patches on the vulva, anus and throat. On the 2nd and 3rd of November she received hypodermic injections of two centigrammes of benzoate of mercury. From the 4th to the 8th, instead of the injections she received three pills a day of bichloride of mercury, one centigramme in each pill. Her system tolerated the pills well. The roseola began to fade and the mucous patches seemed to be disappearing. On the 9th and 10th she received four pills. On the 11th she complained of distress in the stomach and diarrhea. These symptoms were attributed to the pills, and they were stopped. On the 15th, the diarrhea being checked, the administration of the four pills was resumed and continued to the 17th. On the

18th the diarrhea reappeared, and the temperature, which up to that day had been normal, reached in the evening $38^{\circ} 2\text{C}$. On the 19th the morning temperature was 38° and the evening 38.4 ; on the 20th, morning 38 , evening 39.5 ; on the 21st, morning 39.2 , evening 40.5 . On the 20th, putting together the symptoms and the positive results of the urinary examination, Robin diagnosed typhoid fever, so much the more as there were three cases of it in the same ward. On the 22nd dryness of the tongue was observed, also abdominal tympanism, return of the diarrhea, gurgling in the right iliac fossa and a slight enlargement of the spleen. As soon as the diagnosis of typhoid fever was made systematic treatment was begun with cold baths, abundant clysters every two days, with the addition of a spoonful of Labarraque's solution, small doses, as a tonic, of quinine, etc. Judging from the temperature curve and the evolution of the symptoms, this was the fourth day of the infection, and as the patient had been in the ward for twenty-three days there was no doubt that she had contracted the disease in the hospital, as the average duration of the incubation period is fourteen days. She was placed on liquid diet: two litres of milk, one litre of broth and one litre of lemonade. On the 26th prostration was complete, the face cyanotic, the tongue dry and brown. There was abundant green diarrhea, the spleen was very large, the abdomen tympanitic, both iliac fossæ painful, the skin dry, rose spots were present, the urine was scanty and contained gr. 0, 80 albumen. To relieve the arterial tension and to increase the diuresis, she was ordered infusion of digitalis. The temperature, which had remained high, with slight morning remissions, fell on the 30th to 38° , rising in the evening to 40.1 . On December 7th, a pemphigoid and hemorrhagic eruption appeared on the gluteal regions, extending on the 8th to the nates and the upper parts of the thighs. On the 9th the symptoms became more severe, and on the 10th the patient died. At the autopsy there was found a Peyer's patch near the ileo-cecal valve, deeply ulcerated, and also some other patches slightly ulcerated along the course of the ileum. The spleen was large and soft. Mercury, which was sought for, was found in the liver and spleen.

Robin concludes from this case that mercury does not prevent Eberth's bacillus from infecting the tissues and does not lessen its virulence. Some have thought that they could abort typhoid fever by administering gr. $1\frac{1}{2}$ of the black sulphuret of mercury, and at the same time making inunctions of mercurial ointment (Petit and Serres). Others have lauded calomel (Salet, Bouchard). Simone claims that calomel lowers the temperature on the tenth day of the disease, acts on the intestinal ulcerations, and protects them from the pathogenic

microbes of the intestine. Kalb has proposed mercurial frictions, claiming that in 80 per cent. of the cases, they shorten the febrile period. Others have administered the sublimate in doses of 5 gr. a day. But Robin's case shows that the use of mercurial preparations in the treatment of typhoid fever cannot accomplish intestinal or internal antiseptis. Calomel can be used as a purgative, as a cholagogue, or as a diuretic when there are such indications; but the mercurial preparations cannot constitute the basis of a systematic treatment, since they not only do not produce intra-organic antiseptic results, but they have this serious objection that they interfere with organic oxidation. We know that in typhoid fever we must stimulate the oxydizing powers of the organism—the best means of defence against auto-intoxication. Therefore mercury cannot be helpful to typhoid patients. It is rather to be considered hurtful since, as in the case just related, the saturation of the system with mercury may be one of the causes of the fatal issue of the disease.—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

Cardiac Dilatation and Asthenia.

Dr. Burney Yeo, of London, says that it will rarely in mild cases be necessary to have recourse to digitalis, except when there is much dyspnea and troublesome palpitation. In such cases small doses of digitalis may be given in combination with iron, such as :

R Ferri et ammonii citratis, gr. lxxx.
Tincturæ digitalis, mxl.
Spiritus ammoniæ aromatici, ℥ ij.
Infusi calumbæ, ad ℥ viij.

M. et ft. mistura.

Two tablespoonfuls twice a day, an hour after meals.

It is preferable in the less serious forms, however, to employ strophanthus, strychnine, or nux vomica, with coca, in combination with iron, quinine, or arsenic as may seem desirable. The following has been found to be very serviceable :

R Quininae sulphatis, gr. xvj.
Tincturæ nucis vomicæ, f ℥ ij.
Vel tincture strophanthi, mxl.
Extracti cocæ fluidi, ℥ iv.
Spiritus chloroform, mlxxx.
Aquæ, q. s. ad ℥ viij.

M. et ft. mistura.

Two tablespoonfuls twice a day, an hour before food.

In purely anemic cases iron and nux vomica, together with some aperient to insure a regular action of the bowels, will be most appropriate, as:

R Ferri sulphatis exsiccatae, gr. xxxvj.
Saponis, gr. xviii.
Pulveris nucis vomicæ, gr. xxiv.
Aloin, gr. iv.

M. et div. in pil. No. xxiv.

One or two (as necessary) twice daily, after lunch and dinner
—*Therapeutic Gazette*.

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN AND J. O. ORR.

As is well known, cases of shortsightedness or myopia fall into two categories: First, stationary, and second, progressive myopia. In the first class the shortsightedness is usually not excessive, or, in other words, the myopia is of low degree. In these cases the myopia usually does not increase, it is stationary. In the other class the error reaches a considerable height in youth, and increases constantly up to the twenty-fifth year—or even later—resulting in a high degree of myopia. This is properly spoken of as progressive myopia. The following remarks (A. Duane, in *N. Y. Medical Journal*, abstracted in *Medical Age*) gives the prophylactic treatment of myopia. 1. Making the patient wear the full correction of his myopia all the time, and both for distance and near (this means that the glasses should fully correct the myopia, and be worn all the time). This is of prime importance in all varieties of myopia, low, medium and high, stationary or progressive. If this measure is applied early it may check the progress of myopia altogether.

2. Proper attention to illumination, the size and legibility of the print, the quality of the paper used in the books read, the relative height and disposition of the seat and desk, and the many other factors that have been brought out by the zealous investigators into the subject of school hygiene. These are important but subsidiary matters.

3. In low and medium myopia, moderate restriction of near work, or rather its better distribution, so that it is done mainly by daylight and not for too long at any time; furthermore, momentary rest of the eyes at frequent intervals during the work. These rules to be the more strictly enforced the higher the myopia and the younger the patient.

4. In high myopia with evidences of progress, much more stringent restriction of near work. Open-air work to be encouraged, and the adoption of confining and eye-taxing occupations forbidden.

5. In medium, and especially in high myopia, plenty of sleep and out-of-door exercise.

6. Re-examination of the patient at frequent intervals (which in the case of high myopia should be very frequent), to determine how much the myopia has increased. If it has increased, the glasses should be increased also up to the full strength, and the hygienic regulations above detailed modified accordingly.

Dionin in Ophthalmology.

Dr. Schmitz (*Woch. f. Therap. u. Hyg. des Auges*, iv, No. 38) has had occasion to use dionin in five cases of ophthalmic disease, and expresses his great satisfaction with the results, especially in a case of parenchymatous keratitis. The patient, who was on the verge of total blindness, owes his recovery to a course of treatment with dionin. Other similar cases were recorded by the author. The application of the drug produces only transient swelling of the lids. The rapidly increasing favorable literature on dionin justifies the hope that the drug will prove to be a permanent acquisition in ophthalmic therapeutics.

Dr. Albert Terson draws our attention to the local analgesic value of dionin in hemorrhagic glaucoma. Glaucoma is a well known complication of the classical retinitis albuminurica, and treatment by iridectomy is in such cases contraindicated.

The author's patient, a woman of sixty, was suffering from pains due to glaucoma complicating the retinitis of Bright's disease. The pains were so intense and resisted all measures so obstinately that enucleation of the eyeball was considered. As a final resource dionin was tried, a solution of 1:40 being dropped in the eye thrice daily. The effect was most striking and prompt, and the patient thus narrowly escaped the operation. The analgesic action of dionin was also observed in other affections of the eye, and is confirmed by various authorities.

The Suprarenal Gland and its Preparations in Ophthalmic Practice.

G. E. DeSchweinitz (*Therapeutic Gazette*) has an interesting article on this subject. For some years the accumulated experience of many observers has demonstrated that the suprarenal gland itself and certain preparations of it and principles isolated from it are capable of producing a constricting

influence on the superficial vessels of the eye unequalled by any other substance with which we are acquainted.

The preparations commonly employed in ophthalmic practice are, suprarenin, epinephrin, atrabalin, adrenalin and the aqueous extract of the dried gland. Of the dried extract, for example, the one supplied by Armour & Co., five to ten grains to the drachm of sterilized water, may be employed, and to each drachm of the water one minim of carbolic acid may be added, as suggested by Joseph Mullen. In place of water, a saturated solution of boric acid is utilized by some surgeons—for example, W. H. Bates. This solution should be filtered before using it. The sterilized solution of adrenalin chloride, 1:1000, as prepared by Parke, Davis & Co., may be diluted, as required, with sterilized water, physiological salt solution, or boric acid, etc.

Local Action on the Inflamed Eye.—From forty to sixty seconds after the application of the suprarenal preparations to an inflamed eye, depending somewhat upon the character of the inflammation and the depth of the congestion, a marked anemia is produced. If the ocular condition represents a simple hyperemia or overdistention of the conjunctival vessels in a conjunctivitis, the blanching is just as pronounced as in the normal eye. If the iris and ciliary body are inflamed and the so-called ciliary congestion is prominent, there is much difference of opinion as to whether this can be dissipated in like manner.

Therapeutic indications.—1. To relieve hyperemia of the conjunctiva when this is caused, for example, by local irritation, nasal catarrh, hay-fever, eye-strain, etc. Under these circumstances adrenalin is particularly valuable and may be employed in very dilute solutions in the form of collyrium associated with boric acid. For example, 1 drachm of the 1:1000 solution, in 2 ounces of distilled water, with 10 grains of boracic acid, frequently employed, is effectual.

2. In some types of vascular keratitis and scleritis (von Reuss), repeated instillations under these circumstances reduce the vascularization and allow the tissues a chance to recover.

3. To enhance the action of cocaine, atropine, eserine, and pilocarpine by promoting their absorption. The adrenalin preparations are first used, and followed during the period of blanching by the drugs named in any of the conditions in which they are required.

4. To reduce, possibly, the tension in glaucoma, as has been pointed out by Bates, Darier, Reynolds and other observers.

5. To facilitate the introduction of lacrimal sounds, the preparations being first injected through the canaliculus into

the *ductus ad nasum*, their effect being to lessen the congestion and consequently promote the ease with which the sound is passed.

6. To relieve ciliary pain, as has been pointed out by Dudley Reynolds, for example, in all forms of keratitis, iritis, and cyclitis with glaucoma.

7. To modify, according to the same observer, and even to clear up, certain opacities of the cornea—for example, those which follow contusions, and even the opacities in syphilitic iritis.

8. To produce a cosmetic effect.

Hemostatic Value.—There is also much difference of opinion as to the value of these preparations in checking hemorrhage, and if I may quote my own experience, I would say that while they certainly are of use in preventing the oozing from small vessels—for example, in a pterygium operation, in incision of the conjunctiva preparatory to tenotomy, and perhaps even in making an iridectomy—they are of little or no value when the bleeding takes place from larger or even medium-sized vessels.

There is some difference of opinion also in regard to the value of the various preparations. The two most used in this country, adrenalin chloride and aqueous solutions of the dried extract, if I may quote my own observations, yield practically identical results. Solutions of adrenalin chloride have the advantage of being perfectly clear, are more readily kept, and are less subject, I think, to contamination. They have the disadvantage, however, of occasionally producing marked irritation, and I have seen a number of hyperemic conjunctivas grow markedly more hyperemic after the subsidence of the blanching than they were prior to its use, and the patient has complained not only at the moment of the application, but some time afterward, of a stinging and burning sensation.

J. T. D.

LARYNGOLOGY AND RHINOLOGY

IN CHARGE OF J. PRICE-BROWN.

Action of Ozone in Whooping-Cough.—DELHERM (*Archive des Infants*, May, 1902).

Delherm, after treating 28 cases of pertussis by inhalation of ozone, reports the results of his experience. He claims that while it is not a specific for this disease, it possesses undoubted antispasmodic properties, and should be used during the paroxysms only, three or four inhalations of ten minutes each might be given during the 24 hours. The effect is to shorten and lighten

the attacks, as well as to diminish their number. Ozone is not toxic, and might be given in conjunction with other remedies.

The Diagnosis and Treatment of Malignant Stricture of the Esophagus.—CHARLES J. SYMONDS (*Journal of Laryn., Rhin. and Otol.*, September, 1902).

This paper, read by Mr. Symonds before the Laryngological Society of London last June, is already recognized by his confreres as a classic of more than ordinary value—as it is based upon the careful study of a very large number of cases treated by himself.

As a rule, carcinoma of the esophagus is characterized by a gradual development of difficulty in swallowing, at first of solids and then of liquids. Sometimes, however, though early, dysphagia will develop suddenly. In other cases intense loathing of food has been the chief symptom; while in still rarer instances, the breaking down of the carcinomatous tissue has been so rapid that obstruction has never been noticeable.

Of all methods of diagnosis in early cases, the passing of the bougie is the most important, and upon this point the writer gives a very practical hint. It is to pass the bougie past the cricoid during the act of inspiration, or while the act of swallowing is being performed—the former draws down the larynx—the latter draws it up. While inserting the bougie, the operator should always guard against the possibility of entering the trachea.

The diagnosis and treatment vary according to the location of the disease, in the upper, middle, or lower third.

The writer believes that no obstructive lesion, other than malignant, can occur in the upper third. There are three conditions, however, that may simulate it: namely, senile dysphagia, nervous dysphagia, and esophageal pouch. When there is any difficulty in prognosis he considers it best to give an opinion against malignancy, and to await developments.

Stricture in the middle third, although usually carcinomatous, may be caused by myoma or sarcoma.

In the lower third—15 to 17 inches from the teeth—simple or spasmodic obstruction not infrequently occurs.

The writer summarizes the diagnosis as follows:

1. Among early symptoms we may base so-called “dyspepsia,” nausea and repulsion for food; pain alone when the central region is affected.
2. That the passage of a bougie is the only way to clear up the case, and that its employment need not be feared.

3. That extra esophageal disease rarely gives rise to serious dysphagia.

4. That spasmodic obstruction, apart from hysterical form, has always, when decided, an organic cause; and this would be better called intermittent dysphagia.

5. That with regard to the three special districts it may be said: (a) That all organic obstruction in the upper third is malignant, and has a special tendency to cicatrize. (b) That in the central half of the gullet a sarcoma or a myoma, both rare diseases, may cause fatal obstruction; that here also a pouch may give rise to difficulty in diagnosis, but can generally be excluded. (c) That in the lower end alone does simple stenosis occur, and that here there may be difficulty in distinguishing from cancer of the stomach, causing great reduction of the cavity (leather bottle stomach). Finally, that in estimating the extent of the disease, the special value of the steel bolt is noted, and also the use of the Condé bougie in obstruction at the lower end.

With regard to treatment, Mr. Symonds believes in letting the patient alone as long as swallowing can be carried on with sufficient freedom to adequately support life. While bougies can be readily passed, operation is not justifiable, but when dysphagia becomes extreme, a tube should be introduced or gastrostomy performed. He also offers the practical suggestion that a dose of opium being taken the preceding night by the patient, enables the operator to pass the tube more readily.

The treatment varies with the situation of the disease. In the upper third the introduction of a long, soft rubber feeding tube, when possible, was the best. If that failed, or could not be accomplished, gastrostomy was the only other resort.

The central portion of the esophagus is the most suitable for the use of short tubes (Symonds'). They should be four inches long, should terminate like a straight catheter, with two large lateral eyes. The contraindication for the use of this tube is the presence of cough and hemorrhage.

In disease of the lower end no tubes of any kind are tolerated, being rejected by the action of the diaphragm. Hence when swallowing can no longer be accomplished, nor bougies introduced through the stricture, gastrostomy becomes imperative. It is a hopeful operation also, as the stricture in this region may be simple and an ultimate cure made.

When tubes are passed under an anesthetic, Symonds says there is great danger of them entering the larynx. To guard against which he insists upon the advisability of the use of the laryngoscope. When gastrostomy becomes necessary it should be done as early as possible.

A Simple Method of Correcting Certain Deformities of the Nasal Septum.—GEORGE FETTEROLF (*Laryngoscope*, August, 1902).

This is another addition to the long list of methods advocated for the treatment of septal deviations. It is a modification of Kyle's plan. While the latter removes V-shaped sections of the protruding cartilage by knife cuts, after dissecting up the mucous membrane, Fetterolf has constructed a saw file, so shaped that without dissection or previous cutting, it will remove the required V-shaped segment of mucous membrane and cartilage combined.

An anesthetic is always required. After making one or two parallel cuts from before backwards, over the convex cartilage, as the case may need, he inserts the Adam's forceps down to the floor of the nose, and by it breaks the basal attachment of the lower segment and presses it over past the median line. The upper segments are then easily pushed over, and the operation finished by inserting a Kyle's tube.

The after treatment consists of watching the patient for six weeks after the operation. The tube is kept clean by spraying with a warm alkaline solution followed by a bland oil. It is first removed after five days. Subsequent to that, at intervals of two to four days; the regular daily cleansing still to be continued.

The advantages claimed for this method of treatment are the following:

1. No preliminary dissection of mucous membrane required.
2. A properly shaped strip of tissue is removed.
3. The strip is quickly removed, so that prolonged anesthesia is not required.
4. The margins of the cut are exactly parallel, and thus accurate coaptation and quick union are promoted.
5. The bony septum can be attacked as satisfactorily as the cartilaginous.

(If in following the Fetterolf plan, a rubber splint was used instead of a hard tube, it would not require removal until healing was accomplished—the cleansing by an oil spray, above and below the instrument, being sufficient to keep the parts in an aseptic condition. The irritation of removing and replacing the tube at regular intervals would thus be avoided.—ABTRACTOR.)

The Controlling of Hemorrhage After Tonsillotomy.—HEERMANN (*Archiv. fuer Laryngologie*, Vol. 12, No. 111).

This is the report of severe hemorrhage following the removal of a tonsil in a man aged forty-six years. All ordinary methods of control failed. As a last resort, the writer passed silk liga-

tures through the anterior and posterior pillars, and tied them firmly together, with the effect of immediately checking the bleeding. No distress followed.

This is an old method of treatment, and one that has been practiced successfully at the City Hospital of Cologne for twenty years or more.

**Direct Endoscopy of the Upper Air-Passages and Esophagus ;
Its Diagnostic and Therapeutic Value in the Search for and
Removal of Foreign Bodies.**—GUSTAVE KILLIAN (*Jour. Lar.-
Rhin. and Otol.*, September, 1902).

Professor Killian, of the University of Freiburg, demonstrates in this paper the advantages of a wider application of Kirstein's Autoscope, by which a direct vision of the air passages and esophagus may be obtained in a straight line, without damage to these organs.

According to this writer, neither the esophageal probe with olive shaped tip nor the skiagraph can always be depended upon in diagnosis. The olive passes along the posterior wall of the esophagus, and if a foreign body is imported in the anterior wall, it may slip past it without coming in contact. In using the Roentgen-ray the shadow of the foreign body may in some cases be hidden by the shadow of the vertebrae or of the heart, while some foreign bodies give no shadow at all.

Hence direct esophagoscopy is the only absolutely reliable method of examining the gullet from end to end: and although a new method, it is claimed that it can be employed in most patients by practised hands. Local anesthesia by cocaine will do in many cases. In children and nervous subjects generally, anesthesia may be required. By this means the exact form and location of the foreign body within the esophagus may be ascertained, and also the condition of the canal itself. This knowledge and direct vision will enable the operator to select the instrument suitable to the case, and also to remove the foreign body *per vias naturales*.

The most suitable instruments for extraction are in the form of long slender forceps.

In order to obtain direct vision, the head is thrown backward and the tongue and epiglottis drawn forward by a Kirstein spatula, the parts being illuminated by the head-light. In children it is better to administer an anesthetic and have the head drawn over the end of a table.

In removing foreign bodies from the trachea, Killian much prefers, after placing the patient in position, to use a straight tube of length and width sufficient to enter the prima glottidis. He is thus independent of reflex action of the pharynx or

larynx. By this means foreign bodies are easily discovered and extracted.

When tracheotomy has been required, and the foreign body not coughed up, a short straight tube can be inserted, through the tracheotomy wound, into the cocaineized trachea, and bronchoscopy practised through it. For the removal of foreign bodies by this means from the bronchi, a good view, great care, and stillness of the patient, are required. Slender tubular forceps and blunt hooklets, are the instruments of most value.

Out of fifteen cases that have been operated upon, for removal of foreign bodies from the bronchial tubes by the aid of bronchoscopy, thirteen have been successful, two unsuccessful. In only one case was there a fatal result after the body had been extracted. This did not occur until nine months afterwards, and was caused by empyemia upon the healthy side.

PEDIATRICS.

IN CHARGE OF ALLEN BAINES, W. J. GREIG, AND W. B. THISTLE.

Tuberculous Cervical Adenitis (MITCHELL, in Johns Hopkins Hospital *Bulletin*, July, 1902.)

In a comprehensive paper, the writer, after dealing with such topics as causation, condition of the lungs, pathology, symptoms, diagnosis, treatment, etc., draws the following conclusions:

1. Tuberculous cervical adenitis is primarily a local disease of very frequent occurrence, more often in young persons: in itself not extremely serious, and rarely, if ever, proving fatal.

2. It bears a certain definite relation to tuberculosis of the lungs, and serves as the starting point from which tuberculosis may spread.

3. The tuberculin test as an aid to diagnosis is positive and harmless.

4. While recovery may often take place under good hygienic conditions, surgical interference is clearly demanded in most cases.

5. When surgical treatment is resorted to, the operation should be radical in all cases.

6. Recovery may be predicted in 70 to 80 per cent. of cases so treated. Tuberculosis of the lung after complete removal of the glands is comparatively rare.

7. Tuberculosis of the lungs, unless far advanced, is not a contra-indication to operation, the removal of the glands apparently exerting a beneficial influence on the condition of the lungs.

Essential or Toxemic Dropsies in Children (ACKERS, in *American Journal of Obstetrics*, August, 1902.)

These cases present all of the appearances of venal disease—swelling of the extremities, puffiness of the face and edema of the skin. Examination of the urine is negative. The heart and lungs are also in good condition.

This form of dropsy has been described under the terms "Essential or Toxemic Dropsy." Four cases are given, and in each case the dropsy was associated with gastro-intestinal disease, the child being in poor physical condition and worn out by the drain on the system before the dropsy appeared. The writer claims that it is always secondary to gastro-intestinal disease.

No *post mortem* was held in his one fatal case, but the writer asserts that, from the frequent urinary analyses made, no kidney lesion could have been present without discovery.

This has been called toxemic dropsy on account of the supposed presence of a toxin, and this is the opinion of the writer; and if there is no toxin there must be a chemical alteration of the blood which permits the transudation of the serum into the tissues.

Hold, Ashby and Bristin claim that the anemia will explain the dropsy. The writer denies this, and asserts that there are many cases of anemia in which no dropsy occurs, and that therefore some other agency must be present.

Etiology of Hodgkins Disease (*Pediatrics*, April 15th, 1902.)

John M. Dodson reports a case as his contribution to the discussion of the tubercular origin of this disease. There was a general enlargement of all the superficial glands of the neck, varying in size from a filbert to a hen's egg. Glands not tender, nor any evidence of inflammation present. No pressure symptoms and no enlargement of the axillary, abdominal or axillary glands. Spleen not palpable, and no leucocytosis. A diagnosis of the cervical adenitis, probably tubercular, was made, though the possibility of Hodgkins was considered. A gland was removed, but no tubercle or bacilli were found. This, with the failure of the tuberculin test, made a diagnosis of Hodgkins disease more probable. Fowler's solution was given, with a favorable result. It is highly probable that the disease is of infectious origin, but the nature of the infection is unknown.

To justify the diagnosis the writer claims that where there is absence of any antecedent affection of the throat, of pain and tenderness in the glands, of periadenitis, or of any tendency to suppuration, we properly exclude a diagnosis of chronic lymphadenitis.

He made his diagnosis in the failure of tuberculin test and the absence of tubercle in microscopic examination. W. J. G.

Editorials.

THE HOSPITAL SUPERINTENDENTS' ASSOCIATION.

The Hospital Superintendents of America held their fourth annual meeting in Philadelphia, October 14th to 16th. In the absence of the President, Dr. Duryea, of Brooklyn, the Vice-President, Dr. Chas. O'Reilly, of Toronto, acted as chairman. The meeting is said to have been very successful in all respects.

Among the subjects discussed were the following: "The Relation of the Hospital to the Body Politic," "Hospital Organization," "Hospital Reports and Records," "Dispensary Service," and "Hospital Construction." Among the very enjoyable social events were a tally-ho ride through the city park, a banquet, and a trip to Atlantic City.

The next meeting of the society will be held in Cincinnati, under the presidency of Dr. John P. Fahrenbach, Superintendent of the Cincinnati Hospital, October 20th to 22nd. Dr. O'Reilly, after refusing the presidency, was re-elected Vice-President.

GENERAL HOSPITAL ALUMNÆ ASSOCIATION.

There was a large and representative gathering at the third annual luncheon of the Toronto General Hospital Alumnæ Association at McConkey's restaurant, October 31st. Mrs. Pafford, President, occupied the chair, and on her right was Miss Snively, Honorary President. There were present about seventy, including Miss McLeod, of Ottawa; Miss Patton, of Grace Hospital; Miss Mattheson, of the Isolation Hospital; Miss Eastwood, of the Victoria Order, Toronto; Miss Davidson, of the School of Domestic Science; Miss Watson, of the Convalescent Home; Miss Sharpe, of Woodstock; Miss Hall, Miss Wismer, Mrs. Malloch, Dr. Jennie Grey, Dr. Helen MacMurchy, Mrs. Jean Blewett, etc. It is stated that the tables were beautifully decorated with pink and white chrysanthemums, and beside each plate lay a bunch of violets tied with violet ribbon. The

menu cards were also violet—the Training School color. Many toasts were proposed, and received suitable responses, and the proceedings altogether were most enjoyable.

THE CONGRESS OF GYNECOLOGY AND OBSTETRICS AT ROME.

The fourth International Congress of Gynecology and Obstetrics was held at Rome, September 15th to 21st, under the presidency of Professor Ercole Pasquali. The following subjects were discussed: (1) The medical indications for the induction of labor; (2) hysterectomy for puerperal infection; (3) tuberclosis; (4) surgical treatment of cancer of the uterus. Among those who took a prominent part in the discussions were Pinard, Pozzi, Schauta, Leopold, Hofmeyer, Martin and Veit. The only obstetricians and gynecologists of Great Britain present were Simpson, of Edinburgh, and Jap Sinclair, of Manchester.

The *British Medical Journal* thinks it is possible that the Congress may come day make way for an International Gynecological Society. In the mean time the Congress does good work and deserves more encouragement from the profession of Great Britain, Canada and the United States than it has received in the past.

Medical Faculty, University of Toronto.

The total number of regular students registered for this session is 430. There were 405 during last session. The number of freshmen this year is, however, smaller than last, there being 102 this session and 131 last. This is thought to be due to the fact that several have registered in the Arts department for the combined six year course in arts and medicine recently instituted. Between twenty-five and thirty have selected this course, which we believe will be an excellent one. These men will not be registered as students in medicine until they have completed two years in arts. If occasional students were added the total number for this session would be about 500. The new building is rapidly approaching completion.

The Ontario Medical Council Elections.

There is not much excitement over the elections for the Ontario Medical Council so far as we can learn. Dr. Albert A. Macdonald will undoubtedly be re-elected in West Toronto—probably by acclamation. Drs. Edmund E. King and Charles J. Hastings are the candidates for election in East Toronto. Dr. Barriek, the former popular representative, refused to again become a candidate.

In the other divisions most of the former members are likely to be re-elected without opposition. There are some rather notable exceptions, however. In Division No. 2, Dr. Mearns, of Woodstock, has entered the field in opposition to Dr. Williams, of Ingersoll. In Division No. 9 there will be a three-cornered contest between Dr. Hanly, of Midland, Dr. Aylesworth, of Collingwood, and Dr. Gibson, of Sault Ste Marie. In Division No. 17, Dr. Powell is being opposed by Dr. Klotz. Both candidates are practitioners of Ottawa. Dr. J. Algernon Temple has been elected as the representative of the Trinity Medical College.

At Ayton, on Saturday, September 27th, Mr. Charles Jones was brought before Police Magistrate Regan, charged with practising medicine contrary to law. It was admitted that the defendant practised without having the necessary qualifications, never having passed any of the required examinations to entitle him to practise. The magistrate found him guilty of the charge laid, and sentenced him to pay a fine of \$25 and costs, or in default to go to jail. M. O. McGregor, Police Magistrate, of Mount Forest, appeared for the defendant, and A. S. Clarke for the Medical Counsel.

Alvarenga Prize.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1903, provided that an Essay deemed by the Committee of Award to be worthy of the Prize shall have been offered.

Essays intended for competition may be upon any subject

in Medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1903.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award.

The Alvarenga Prize for 1902 was not awarded, the Committee having decided that no essay of sufficiently high standard was submitted in competition.

THOMAS R. NEILSON, M.D., *Secretary*.

DR. APOSTOLI'S HOSPITAL.

(15 RUE MONTMARTRE, PARIS.)

Dr. Laguerriere, director of the Special Hospital, and Louis Delherm, house surgeon of the Paris hospitals, will make twelve practical conferences on Medical Electricity in November and December, 1902 :

PROGRAMME.

- I., II. Electrophysic and Apparatuses.
- III. Physical and Physiological Effects of Electricity on Living Beings.
- IV., V. Gynecology.
- VI., VII. Digestive Bile.
- VIII., IX. Nervous Diseases.
- X. Nutritive Diseases.
- XI. Skin Diseases.
- XII. Various Applications (articular diseases).

A similar series will take place in June and July, 1903.

For particulars, address to the Special Hospital, 15 Rue Montmartre, Paris, from 4 to 5 o'clock.

The new Toronto Orthopedic Hospital, on Bloor Street West, was opened, October 5th.

The Medical Council of Quebec, by a vote of twenty-one to eleven, has rejected a resolution to provide for the introduction of a measure into the Quebec Legislature assenting to the provisions of Dr. Roddick's Bill for a Dominion Medical Council.

Personals.

Dr. Schomberg Elliot has returned to Toronto after a trip to Europe.

Dr. J. Chalmers Cameron, of Montreal, visited Toronto, October 20th.

Dr. W. H. Alexander, of Toronto, was married, October 16th, to Miss Laird.

Dr. W. Rushmer White, of Baltimore, spent the first week of October in Toronto.

Dr. Francis G. Wallbridge, of Midland, was married, October 28th, to Miss Keating.

Dr. Farncombe, of Trenton, Ontario, spent a few days in Toronto early in October.

Dr. Ezra A. Haist, of Crediton, was married, October 30th, to Miss Walker, of Toronto.

Dr. P. E. Doolittle, of Toronto, sailed for England by the *Lucania* from New York, October 18th.

Dr. J. M. Jory, recently returned from South Africa, has commenced practice in St. Catharines.

Dr. J. H. McFaul, of Toronto, who was seriously ill during the early part of October has recovered.

Surgeon Lieut.-Colonel G. Sterling Ryerson, Toronto, has been promoted to the full rank of Colonel.

Dr. Elias Clouse, of Toronto, returned to his home, October 23rd, after spending a couple of weeks in Baltimore.

Dr. W. C. Morrison, of Pinkerton, Ont., is spending some months doing post-graduate work in London, England.

Dr. E. M. Von Eberts has been appointed Registrar of McGill Medical Faculty, in the place of Dr. R. F. Ruttan, resigned.

Dr. J. Churchill Patton, of Toronto, returned to his home after an extended tour in the United States, October 20th.

Dr. W. T. Wilson, assistant physician at the Asylum for Insane, London, has been transferred to the Hamilton Asylum.

Dr. Duncan M. Anderson, lately surgeon to the Canadian Mounted Rifles, has commenced practice in Toronto at 241 Wellesley Street.

We are glad to announce that Dr. L. L. Palmer, of Toronto, who has been seriously ill from septicemia for several weeks, is slowly recovering.

Major F. L. Vaux, after returning from special service in South Africa, has been appointed a captain in the Canadian Army Medical Staff.

Dr. W. G. O. Dowsley, who has been practising for about a year and a half at Michipicoten, has removed to Toronto and opened an office on Robinson Street.

Dr. James Anderson, of Hamilton, is at present engaged in post-graduate in New York. He will go to London, England, shortly and remain there for some time.

Dr. John Barr, M.P.P., of Shelburne, was seriously injured in a buggy collision accident, October 22nd, resulting in a compound fracture of the leg near the ankle. He is now in the Toronto General Hospital, and is improving rapidly.

Surgeon-Major W. A. Willoughby, M.P.P., of Colborne, has been granted the honorary rank of Surgeon-Lieutenant-Colonel, 40th (Northumberland) Regiment.

Dr. T. S. Sproule, M.P., for East Grey, was in Toronto, October 26th, after his return from an extended tour in Manitoba, North-West Territory and British Columbia.

It is stated that Dr. T. H. Starkey, of University College Hospital, London, England, is likely to be appointed Professor of Hygiene in the place of Dr. Wyatt Johnston, deceased.

After attending the meeting of the Hospital Superintendents in Philadelphia, Dr. Charles O'Reilly, of Toronto, spent ten days in Atlantic City, New York and Buffalo, and returned to Toronto, October 26th.

Mr. Brefney O'Reilly, who is now in his fourth year in medicine, has quite recovered from an appendicectomy recently performed. He returned to Toronto, November 1st, after spending a fortnight at the Welland Hotel, St. Catharines.

Dr. Colin Campbell, of Toronto, one of the resident internes, Toronto General Hospital, 1899-1900, after acting as surgeon on the C. P. R. steamship *Empress of India* for two years has resigned, and recently visited his friends in Toronto. He left in October for Europe where he will be engaged in post-graduate work for some time.

Dr. G. H. Carveth has opened a private hospital at 239 College Street, Toronto, with good accommodation, home comforts and efficient nursing, under the supervision of physicians who send in patients.

Obituary.

WILLIAM H. CLUTTON, M.P.

Dr. Clutton died at his home in Edgar, near Barrie, in August. He graduated M.B., University of Toronto, in 1888.

INGLIS LOUGH, M.D.

Dr. Lough died suddenly at his late residence, 14 St. Patrick Street, Toronto, October 31st. He formerly lived in Bermuda, and had not been in active practice for several years. He came to Toronto twenty-six years ago. The cause of his death was said to be heart failure.

HOBERT S. GILBERT, B.A., M.B.

Dr. H. S. Gilbert died of heart disease at Brooklin, Ontario, October 15th, 1902. After graduating in medicine, Toronto University, in 1900, he commenced practice in Angelica, N.Y., and was unusually successful. He was compelled to give up work last July, and came to Brooklin with a hope that a rest would restore him to health. His friends were much disappointed to find him steadily growing worse until death came.

DUNCAN McLARTY, M.D., M.R.C.S., Eng.

Dr. Duncan McLarty, of St. Thomas, died at the Buffalo General Hospital, November 7th, aged 63. He had been ill for about a year, and submitted to an operation, from which much was hoped. He did not rally properly, however. On the following day he sank rapidly, and died somewhat suddenly. He was one of the most prominent physicians of Western Ontario, and was twice Mayor of St. Thomas.

FRED C. STEELE, M.B.

Dr. Fred Steele, who had been practising for five years in Bracebridge, died of typhoid fever, October 31st, aged 30. He received his medical education in the University of Toronto,

graduating in 1896. He was very successful as a practitioner, and his prospects were of the brightest sort. Apart from his ability as a physician he was much liked by his many friends, most of whom were greatly shocked to hear of his death before they knew anything about his illness. His widow and one child survive.

THOMAS PATRICK WEIR, M.D.

Dr. Weir died in Toronto, October 27th, after an illness of a few weeks, from tuberculosis. After graduating, M.B., University of Toronto in 1888, he acted as one of the resident staff of the Toronto General Hospital for one year. He then became a member of the medical staff of the Aylum for Insane, Toronto, where he remained for four years. He commenced general practice in Toronto in 1893, but went to Port Arthur in 1900, where he practised until he was seized with acute tuberculosis. His wife and one daughter survive him.

Book Reviews.

Progressive Medicine, Vol. III, September, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 421 pages, 26 illustrations. Per volume, \$2.50, by express prepaid to address. Per annum, in four cloth-bound volumes, \$10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

This third volume for the year of "Progressive Medicine" emulates the attractiveness of its predecessors, and will be found well worthy the careful study of every practitioner of medicine and surgery.

In this volume the first article covers the diseases of the thorax and its viscera, including the heart, lungs and blood-vessels by that most charming of English medical writers and specialists, William Ewart, of London. It deals with a group of diseases that the physician meets constantly in his daily practice. To him a thorough knowledge of the latest advances in connection therewith is an absolute necessity, and here it is to his hand, gleaned, condensed and in such form as cannot fail of appreciation.

Dermatology and syphilis are treated by William S. Gottheil, Professor of Dermatology and Syphilography in the New York School of Clinical Medicine, in a clear, lucid style so easy of understanding, and so acceptable to the practitioner who will find not only material for thought but information that will be found of infinite use in the treatment of this troublesome class of diseases that he meets daily in his practice.

Diseases of the nervous system from the pen of William G. Spiller, of the University of Pennsylvania, will be found not only of interest to the specialist but to all who have this class of patients come before them. The leading neurologists have been during the past year unusually active, and almost every name of note will be found mentioned in connection with articles of living importance to the profession.

The fourth and last but not least article in the volume is prepared by Richard C. Norris, of the University of Pennsylvania. That it is well done goes without saying, as is all that appears from Dr. Norris' facile pen. The entire ground of obstetrics, covering pregnancy, the management of labor, obstetrical surgery, tumors complicating pregnancy, labor obstructed by pelvic deformity, placenta previa, postpartum hemorrhage, the management of puerperium and the care of the new-born infant have been gone over in a painstaking way that insures the reader of "Progressive Medicine" a complete résumé of all that is new in these important branches of the subject.

In short, this volume will be found to contain all that is new on the subjects which it covers.

In medical literature so vast is the number of volumes and periodical articles which annually appear that no practitioner can hope, without such an aid as "Progressive Medicine," to keep abreast of the rapid advances that take place, and no one who attempts to do his duty by his patients can afford to be without these volumes, and there is no one, however well he may be posted, but can find ample material well worthy of his careful investigation and study.

Practical Diagnosis. The use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Fourth edition, enlarged and thoroughly revised. In one octavo volume of 727 pages, with 236 engravings and 25 full-page colored plates. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$7.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

In preparing the fifth edition of this work, the author has rewritten a very large part of it, and has by the addition of much new material and by the careful revision of the earlier text kept the book abreast of the advances in diagnostic technique, with the object of providing the practitioner with a manual which will be an efficient aid to him in studying his cases.

The primary object of the work is to present the symptoms of a disease as they appear, and from this group of symptoms to arrive at a diagnosis, following the methods which are ordinarily employed at the bedside. Thus, if a patient has paraplegia, the reader will find in the chapter on the feet and legs a description of the symptoms of the various causes of the loss of power in the lower limbs, and so be led to a diagnosis of locomotor ataxia, myelitis, or neuritis, as the case may be, and in the chapter on vomiting there will be found discussed the various causes which produce this annoying and dangerous symptom.

The present edition differs materially from its predecessors in that its scope has been broadened to include not only the symptoms, discussed in the manner just described, but also the physical signs and clinical tests which experience has proved to be reliable. These have been considered much more fully than before, with the object of making the book as complete as possible. A large number of illustrations, most of them dealing with actual cases, have been introduced.

It is not surprising that this work has come to its fifth edition in six years, for in addition to its great practical value it is arranged with a view to maximum facility of reference, and its frequent revisions keep it always up to the most recent advances in its subject.

A Text Book of Materia Medica, Therapeutics and Pharmacology. By GEORGE F. BUTLER, Ph.G., M.D., Professor of Materia Medica and Therapeutics in the College of Physicians and Surgeons, Chicago, Medical Department of the University of Illinois, etc. Fourth edition, thoroughly revised. Handsome octavo volume of 896 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$4.00 net; sheep or half morocco, \$5.00 net. Canadian Agents, J. A. Carveth & Co., Parliament Street, Toronto.

The new edition of this commendable work is offered to the profession after a careful and complete revision. The pharmacology and therapeutics of each drug have been thoroughly revised, incorporating all the recent advances made in pharmacodynamics. In view of a larger experience, resulting in more definite conclusions, numerous modifications have been made in the expressions of opinion regarding the utility of certain drugs, notably the newer synthetics. The chapters on organotherapy, serum-therapy, and cognate subjects have been enlarged and carefully revised. The author has wisely chosen for description only those drugs in common use, omitting many new remedies of doubtful value, and many of the official drugs which are practically never used. The book is an admirable one both for students and practitioners.

Essentials of Diseases of the Ear. By E. B. GLEASON, S.B., M.D., Clinical Professor of Otology, Medico-Chirurgical College, Philadelphia; Surgeon in charge of the nose, throat and ear department of the Northern Dispensary, Philadelphia, etc. Third edition, thoroughly revised. 16 mo. volume of 214 pages, with 114 illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$1.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This valuable little help, one of Saunders' Question-Compend Series, has reached its third edition. The book will be found of service, not alone as an aid to the student, but also to the physician who wishes to take a post-graduate course in otology, enabling him, as it does, to acquire the rudimentary facts of the science with as little preliminary reading as possible. The essentials of otology have been stated concisely, without sacrificing accuracy to brevity. The diagnosis and treatment of diseases of the ear have been brought absolutely down to date by a thoroughly scrupulous revision; only such methods of treatment being included, however, that have personally proved efficacious in the majority of cases. Besides carefully revising the old text, many interpolations of new matter have been made, thus somewhat increasing the number of pages in the present edition. The illustrations—many from original drawings—have been selected with the aims of the book constantly in view; and they form a very commendable feature of the work. Indeed, the little volume before us will unquestionably continue to be one of the most popular of Saunders' unequalled question-compend series.

A System of Physiological Therapeutics. A practical exposition of the methods other than drug-giving, useful in the prevention of disease and in the treatment of the sick. Edited by SOLOMON SOLISCOHEN, A.M., M.D., Professor of Medicine in the Philadelphia *Polyclenic*. Volumes III. and IV., Climatology - Health Resorts, Mineral Springs. By F. PARKES WEBER, M.A., M.D., F.R.C.P., Lond., with the collaboration for America of Guy Hinsdale, M.A., M.D. In two volumes. Philadelphia: P. Blakiston's Son & Co., 1901.

Book I. is divided into two parts. The first deals with the elements of climate, altitude, and aerial currents soil and general topography. The classification and general effect of the different classes of climate. The second part treats of ocean climates and sea voyages and resorts on the European coasts, and of inland Europe and the British Isles.

Volume IV. of this excellent system takes up such topics as the health resorts of Africa, Asia, inland resorts of the Pacific, South America, Central America, the West Indies and Bermuda. It gives also a classification of the climates of Canada the United States, Mexico, and neighboring isles; health resorts in the Dominion of Canada, the resorts of the United States of America, the Republic of Mexico, and the Hawaiian Islands.

Following this is taken up the question of the general management of patients at health resorts, and most valuable chapters of special therapeutics complete two volumes of great interest and usefulness.

Correspondence.

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

DEAR SIR,—The active staff of the Girls' Home were obliged to resign in a body within the past month, owing to a disagreement with the Board of Management, after repeated efforts on their part to come together. The action of the Board was such that no self-respecting medical practitioner could consent to act further under prevailing arrangements.

Members of the profession proposing to seek appointment on the Home staff would act in their own, and the profession's interest, if they would call upon me before accepting such appointment.

Yours very truly,

D. J. GIBB WISHART,

Senior member of the late staff.

Toronto, October, 1902.

HOW TO ASSIST YOUNG GIRLS TO WOMANHOOD.

By EDWARD C. HILL, M.D., DENVER, COLORADO.

The primary establishment and the menopausal cessation of menstruation are the two crucial physical epochs of woman's life. The change from maidenhood to womanhood is one that involves the whole body, and manifests itself alike in the form, the voice and the sexual and nervous phenomena. In an ideal state of perfect health this transition into puberty should be as natural and uneventful as gliding from sleep into consciousness. Owing, however, to the present civilized modes of living, the cerebral development of young girls is fostered and forced to a degree that deprives the remaining tissues and organs of their necessary nutrition, and too often we are called upon to treat delicate girls that are like buds blasted in the blossoming. Many a woman traces back a prolonged existence of semi-invalidism to exposure and lack of care at the early menstrual periods. Tight lacing also predisposes to pelvic disorders by interfering with circulation and exciting uterine displacements. The strain of puberty upon the nervous and blood-forming structures may be too great in a subject hereditarily deficient in vital resistance and adaptability. So we may count among the morbid incidents more or less peculiar to puberty, chlorosis and anemias, general debility, neurasthenia and hysteria, acute pneumonic phthisis, chorea and hebephrenia.

According to Emmet, more than half of all women who have suffered at puberty from menstrual derangements are sterile and delicate in after life. Skene has stated that his observations showed that the vast majority of incurable diseases peculiar to women originate in imperfect development and consequent derangement of function. This development is either primary, during the embryonic stage, or secondary, at puberty. Defects in the former are irremediable, whereas secondary deviations from the normal standard are both preventable and curable in most instances.

It is important in connection with the subject under consideration to bear in mind the essential reciprocal relations of the reproductive system and the general organization. As Virchow says, all the specific properties of woman's body and all her womanly characteristics depend upon her ovaries. In other words a woman is not fully a woman unless her sexual development is natural and complete and in line with a healthy general organization. A beautiful illustration of sexual dimorphism has been furnished by Prof. Max Weber (quoted by Skene), who presented the case of a chaffinch in which the left side of the body had the female coloration and the right

side that of the male bird, the two colors being sharply limited at the middle line. The bird was a hermaphrodite with a well-developed ovary on the side of the female plumage, and a testicle on the opposite side. The phenomena of menstruation offer the most palpable evidence of the onset of puberty. The precise nature of this rhythmic cycle is over-shadowed by a jungle of theories, and, as Millikin well says, we can do no better in the present state of our knowledge than accept menstruation as a habit which has been nailed upon our race by heredity, and which is for us an ultimate biologic fact.

Normal menstruation in temperate climates generally begins in the fifteenth year. In the tropics it appears much earlier, so that in Mexico one may see a grandmother of only twenty years. Within the Arctic Circle Eskimo girls do not generally arrive at puberty until the eighteenth year. City girls usually have the menstrual flow earlier than do hard working country girls, in whom muscular exercise has the same derivative effect on the pelvic blood supply as too intense devotion to study. The time, amount and character of the menstrual flow vary normally within wide limits. The menstrual cycle for different individuals ranges in perfect health from two to six weeks. The average duration in the temperate zone is about four days. Soaking more than three napkins daily is considered abnormal. Anemic girls, as a rule, tend to menorrhagia; chlorotic ones, to scanty menstruation. Clots are present when the amount of blood is great, or the mucus and fatty acids scanty. A periodic white menstruation, from supersecretion of the uterine glands, is not infrequently noticed in the intervals midway of menstruation.

Menstruation is or should be a perfectly physiologic process. In the virgin disorders of menstruation of whatever nature are nearly always dependent upon the defective nutrition of the reproductive organs, and this in turn upon a blood supply insufficient in quality or in quantity. In the great majority of cases, therefore, our efforts to aid nature in effecting the transformation of the girl into a woman, should be in the line of a happy balance of nutrition between the special female organs and the body as a whole.

Hygienic measures are of the first importance. Fresh air and sunshine are always in order. Exercise is especially indicated for the fat and flabby chlorotic girl, and her diet should be restricted in sugars and starches. The highly active, intellectual girl must rest from her studies and try to become a little lazy. Proper precautions should be taken in regard to reasonable care of the person at the time of the monthly periods. Yet the physician should beware of unduly alarming his little patient, and so bringing about a condition of hypo-

chondriacal valetudinarianism. Simple cleanliness is certain to do no harm, but good. The conservation of the general health and vigor is the chief factor in maintaining safe and easy menstruation.

In spite of hereditary defects, if the physician could have full control of the diet, clothing, hygiene and environments of the little girls in his clientele up to the date of puberty, but little if any medication would be then required. Unfortunately however, the lack of harmonious development in the preadolescent period necessitates considerable medical attention to secure a normal course for the critical metamorphosis of puberty, whose influences, as Dudley remarks, are fundamental, not only in the reproductive organs, but in the entire woman. Actual pain at the menstrual period in the young virgin may be considered always pathologic, and the same is true of menorrhagia or very scanty menstruation. Such abnormalities of function should direct our attention to the state of nutrition especially. The obese, chlorotic girl must take more exercise; the thin, delicate, sensitive girl, more rest. Fresh air and sunshine are needed in every instance. Red meat, eggs and other blood-forming foods should be taken in such quantities as can be well borne. The appetite for wholesome nutriment should be encouraged, if need be, by stomachic stimulants, such as the official elixir of strychnin, pepsin and bismuth. The use of bromides, coal-tar analgesics and diffusible stimulants at the menstrual periods can be regarded only as a temporary makeshift.

The most constant and positive clinical sign of imperfect puberty is deficiency of the blood in red corpuscles and hemoglobin, the chlorotic type being perhaps more common than the simple anemic in relation to menstrual disorders. Hemic defects and malnutrition act reciprocally as cause and effect. The oxidizing life of the blood is in the iron it contains, with about one-twentieth as much manganese. The total iron of the adult body amounts to but 2.5 or 3.5 grams, chiefly in the form of hemoglobin. The normal daily content of iron in the food of an average diet is, according to Stockman, from five to ten milligrams. When absorbed, as in health, this food-iron replaces the metal continually lost by disintegration of blood corpuscles and excretion. The round of iron in the body seems to be from the duodenum to the mesenteric glands, thence to the thoracic duct, the general blood current and the spleen, from where it passes to the liver to be synthetized into hemoglobin for the red cells, on the breaking down of which the dissociated iron is eliminated by way of the large intestine.

The use of iron in anemic and chlorotic conditions is, of course, a cardinal principle in therapeutics. In girls becoming

women to supply a deficiency of erythrocytes or hemoglobin, one might infer at first thought that the best method would be to administer hemoglobin, that is, blood in some form. Chemistry proves, however, that when hemoglobin is taken into the stomach it is changed by the acid there to hematin (causing the coffee-ground color of small gastric hemorrhages), which, according to Cloetta, passes down the alimentary tract without being absorbed.

Most authorities conclude that inorganic compounds of iron in order to be absorbed must first be changed to albuminates by combining with food matters. All albuminous substances are hydrolyzed to peptons before they are capable of absorption. Hence it follows that a peptonate of iron is the preparation most likely to be readily and completely absorbed and assimilated. The best remedy of this composition, I think, is Gude's Pepto-Mangan, which I have used for the past ten years with great satisfaction, particularly in the hemic and nutritive disorders of female puberty.

This neutral solution contains three grains of iron and one grain of manganese in each tablespoonful. The latter ingredient is doubtless to be credited with a large part of the nearly specific effect of the remedy in functional menstrual derangements. The preparation is pleasant to the eye, agreeable to the palate, and has the great advantage over inorganic iron compounds of not corroding the teeth, deranging digestion nor inducing constipation. According to the nature and severity of the case, the dose varies from a teaspoonful to a tablespoonful. It is well taken in milk or sherry just after meals.

The following brief clinical notes may serve to illustrate the facts above stated. The blood count in each instance was made with the Thoma-Zeiss hemacytometer; hemoglobin was calculated by the Hammerschlag specific gravity method. I need hardly remark that the blood findings at the altitude of Denver are normally higher than at points near sea level.

CASE 1.—Jose K., 15 years, thin, delicate and somewhat strumous, had menstruated irregularly and intermittently for sixteen months; erythrocytes 3,600,000, hemoglobin 58 per cent. She was taken out of school, put on a diet largely protein, given aloin, strychnin and belladonna pills for her bowels, and for her blood, Pepto-Mangan (Gude), a dessertspoonful four times daily after eating. Under this treatment she made an average weekly gain of $1\frac{1}{4}$ pounds in weight, about 150,000 red cells and $3\frac{1}{2}$ per cent. hemoglobin, and was discharged cured in ten weeks.

CASE 2.—Alice R., 18 years, rather stout but pale, with greenish tinge; complained of palpitation and breathlessness on slight exertion; menstruation barely begun and scanty. She

was made to take gradually increasing exercise on her bicycle, a cool bath every morning, less carbohydrates and more proteins in her diet, and Pepto-Mangan (Gude) in the dose above mentioned. She recovered from all her morbid symptoms within four months, and has since married and given birth to two healthy children.

CASE 3.—Amelia B., 23 years old, an overworked servant girl, had suffered since the periods first began, nine years before, with marked dysmenorrhea, the flow being prolonged but rather scanty. The red blood cells numbered 3,800,000 per cu. m. m., with proportionate oligochromia. She was induced to rest at home and take six eggs daily, along with other nourishing food and Pepto-Mangan (Gude), a dessertspoonful four times daily an hour after food. She made a very rapid recovery, the red cells running up to 4,900,000 within two months and the menstrual periods becoming quite normal. By exercising proper care she has remained well for the past eight years.

CASE 4.—Olive M., 13 years, blonde, thin, active, sensitive, a hard student, just beginning to menstruate, the flow being scanty and accompanied with pain. The blood count was 63 per cent. of normal, the color index 57 per cent. Under treatment similar to that mentioned in the first case, she became round and rosy, menstruated freely and easily, took on seventeen pounds in weight and raised the blood findings above the normal at sea level, all within eight months.

CASE 5.—Fannie R., 17 years, active, ambitious, intelligent, had such excruciating pain all through her menstrual periods for two years as to cause actual wasting. Physical examination revealed nothing normal except an undersized uterus. She was given Pepto-Mangan in tablespoonful doses three times a day, and was told to lie with the head lower than the hips. After three months' treatment the periods became quite painless, and have remained so for five years.

CASE 6.—Flora J., 16 years old, began to menstruate profusely a year before, since which time she has been always ailing; erythrocytes 3,100,000, hemoglobin 63 per cent. She was given cool baths and massage, a bitter tonic, laxatives and Gude's Pepto-Mangan in dessertspoonful doses. When discharged cured, five months later, the blood count was 4,700,000, hemoglobin 95 per cent.

CASE 7.—Maggie W., aged 15, clerk in a department store, was extremely chlorotic (hemoglobin 28 per cent.), with a soft, systolic basic murmur and some symptoms of gastric ulcer; menstrual molimina but no flow. She was kept in bed at home, fed largely on meat, fish and eggs, and was given Pepto-Mangan (Gude) thrice daily a tablespoonful at a time. The functional murmur soon disappeared, the iron in the blood came

gradually up to normal, the patient lost in weight as she gained in health, and menstruation appeared regularly.

CASE 8.—Nora R. 14 years, healthy in appearance but neurasthenic; no trouble with menstruation, except at this time she became more nervous and developed a rapid pulse and some swelling of the thyroid gland. For this incipient exophthalmic goitre she was kept in bed with a cold pack over the thyroid at the menstrual period, and was given Pepto-Mangan (Gude) steadily for six months in dessertspoonful doses. She has been quite well and free from the symptoms mentioned for over a year.

In conclusion the writer would like to emphasize the peculiar physiologic efficacy of Pepto-Mangan (Gude) in aiding young girls to a normal womanhood, when the crisis of puberty is complicated with any defect in blood-making and nutrition. Its action is prompt and pleasant, and the clinical benefits derived from its use are readily apparent to all concerned. In curable cases it is as nearly specific as any combination of drugs could be.

SOME REMARKS ON CATARRH.

By GEO. HOWARD THOMPSON, M.D., St. Louis, Mo.,

Professor of Materia Medica and Therapeutics in the St. Louis College of Physicians and Surgeons.

In the past year I have been weaned away from the many varieties of tablets and powders which have been foisted upon a patient and indulgent profession for their use in treating the various forms of nasal catarrh. The tablets were generally soluble only in warm water, and had nothing to recommend them as superior to Dobell's solution. The powders used for insufflation generally caused irritation and sneezing, a thing to be avoided in acute forms of rhinitis. I have always been partial to the alkaline mixtures, in which respect the profession at large are probably with me. The best representative of this class, in my opinion, is Glyco-Thymoline, an antiseptic of claret color, pleasant taste, alkaline reaction and non-irritating to raw or mucous surfaces. I have found it a pleasant mouth wash, an effective gargle in pharyngitis and an ideal preparation for the cure of acute and chronic rhinitis. In these conditions Glyco-Thymoline will be found to produce the desired result. It seldom fails to cure acute pharyngitis in two days when gargled in full strength or diluted not weaker than 25 per cent. In acute rhinitis it has produced best results when in solution not stronger than 20 per cent. In chronic rhinitis I have used as strong as 50 per cent. solution, gradually increasing the

strength from 25 per cent. The following cases are fair representatives of the results produced by this agent in catarrhal conditions of the nose :

Case 1. J. T. D., aged 21 years, of medium stature and build, well nourished and of good family history, asked to be relieved of a cold in the head, from which he had suffered for two days. On going out into the air he would have to hold his breath until his nasal passages could accommodate themselves to the cold atmosphere. Examination showed his nasal mucous membrane to be swollen and congested, with an abundance of secretion of seropurulent mucus, which rapidly accumulated, stopping the nasal passages. Temperature, 99.6 degrees. The eyes were suffused, and the lips and alae excoriated from the acrid discharges. The case being one of simple coryza, symptomatic internal treatment was followed, in addition to which the local use of Glyco-Thymoline in 20 per cent strength was adopted, the medicament being applied to the nasal air passages by means of the Bermingham douche. The solution was first warmed to the temperature of the body, or a trifle higher, and the instrument filled to about three-fourths its capacity, from which it was allowed to flow into the nostril, while the patient tilted back his head and breathed through his mouth. This simple operation was repeated during the day at intervals of two hours, with some relief; but the remarkable effects were not noticed until the next morning, when, on awaking, the patient's nasal passages felt as though entirely well. During the second day, however, patient continued the douches, at longer intervals, though regarding himself cured of his acute catarrh.

Acute cases of nasal catarrh are usually cut short in just this manner by the consistent use of Glyco-Thymoline, and such prompt results may usually be expected in the early stages.

Case 2. N. F., aged 36, lawyer, family history good, with the exception of chronic catarrh, with which both parents were afflicted. One week previous to coming under my care, patient contracted a cold in the head, the symptoms of which were similar to those of the preceding case. The more acute symptoms, however, had subsided, and patient complained that his nose filled with thick muco-purulent matter, which interfered with breathing and required the constant use of the handkerchief. Examination revealed a mucous membrane congested throughout, even involving the pharynx and secreting the characteristic muco-pus, which would accumulate and drop into the pharynx or occlude the air passages. As in the preceding case, a 20 per cent. solution of Glyco-Thymoline was prescribed, to be used in conjunction with the Bermingham douche, at intervals of two hours. Prompt relief was effected, the patient being able to sleep with comfort for the first time in a week,

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Original Communications.

DRY LABOR.*

BY ADAM H. WRIGHT, B.A., M.D., TORONTO,

Professor of Obstetrics, University of Toronto; Obstetrician to Toronto General Hospital, Etc.

Have you ever been in St. George's Chapel, Windsor Castle? If not, come in with me to one of its lower corners and look at something sadly interesting from an obstetrical standpoint—the cenotaph of the Princess Charlotte. This monument, built in memory of one of England's most dearly beloved women, serves also as a memorial of the saddest obstetrical calamity recorded in British history. All England, in 1817, was waiting for a happy termination of the Princess Charlotte's pregnancy. The membranes were ruptured on Monday at 7 p.m. Labor pains followed soon after and continued in varying degrees for fifty hours. There is every reason to suppose that in this "dry" labor the uterine contractions were accompanied by more than the average amount of suffering. The first stage probably lasted about ten to twelve hours; the second stage thirty-eight to forty hours. The three distinguished physicians in charge decided that "giving assistance was quite out of the question," as the "labor proceeded regularly although slowly. The child was born without artificial assistance." Soon after delivery there was post partum hemorrhage and hour-glass contraction and the placenta was removed by the hand introduced into the uterus. In two hours she became "sick at the stomach, had noises in her ears, became talkative and had a frequent pulse." In another hour symptoms of pulmonary thrombosis occurred. Patient died in a few minutes.

It is somewhat difficult to realize that this sad tragedy was enacted in England, the birthplace of the midwifery forceps.

which had been invented two hundred years before. However, I do not wish you to get the idea that the attending physicians did nothing. They were, in some respects, most strenuous. They carefully prepared their patient for her severe trial by lowering her organic strength by bleeding, aperients, and low diet; and they tried to resuscitate her dead baby.

In considering such a report we, the wisemen of this intelligent era, might think we could have done better. Well, as we could not by any possibility have done worse, it may be fairly assumed that we should have done better. Let me ask a question, however: How many of us to-day can manage, in a thoroughly satisfactory manner, an ordinary case of "dry" labor? Very few, if any, I fear.

The direct references to the subject in our text-books are of the most meagre description. We are told that in certain cases the membranes rupture early, causing a dry labor. In such a case the parts must be dilated by the hard unyielding presenting part instead of by the bag of waters. Such labors are tedious and painful. Lacerations of the soft parts are apt to occur and the use of the forceps is frequently necessary. I wish to-day to go a little beyond these vague statements, and speak somewhat definitely of the conditions present, the dangers to be feared, and the proper treatment to be adopted.

The term "dry," as applied to such labors, is unscientific, and to a certain extent misleading. I shall consider a dry labor as one in which the membranes are ruptured, and the waters evacuated before the onset of labor during early uterine contractions, or during the first stage of cervical dilatation. In other words, the term "dry" simply refers to premature rupture of the membranes, and discharge of the liquor amnii. If any portion of the parturient canal (especially the mucous membrane of the vagina) becomes hot and dry, that condition should be considered as one of the complications, and not as an essential feature of the "dry" labor.

DANGERS.

The following are some of the dangers to the mother:

Exhaustion from long continued pain.

Rupture of the uterus.

Laceration of the cervix and vagina.

Injury to the pelvic floor.

Laceration of the perineum.

Various forms of fistula.

Irregular contractions of the uterus, "hour-glass."

Post partum hemorrhage.

Pulmonary thrombosis.

Septicemia.

The dangers to the child are chiefly: Asphyxiation, meningeal hemorrhage.

Let me call your attention to some of the elementary facts connected with the mechanism of uterine expulsion.

Physiologists explain to us that every muscle in the body has an opponent, and that, generally, the flexors and extensors are opposed to each other.

The muscular fibre which shortens during contraction does not lengthen after contraction, except by direct action of its opponent.

In the uterus the opponent to the muscular fibres is not a muscle, but the liquor amnii, contained within the membranes, acting by hydrostatic pressure.

Before labor the muscular fibres, after contraction, are forced to their original length by the pressure of the liquor amnii.

After labor commences, but before rupture of the membranes, the internal os begins to open and the amnion is forced partly into the cervical canal. The resisting pressure is thus lessened, and the muscular fibres are not stretched to their original length after the contraction, but become gradually shortened by successive pains. This is partial retraction.

We have, also, the results of uterine polarity, in consequence of which the lower zone and cervix relax while the fundus of the uterus contracts. Such relaxation does not, in itself, cause dilatation, but renders the lower zone capable of extension.

After rupture of membranes there is generally a stoppage, for a time, of the contractions.

Premature rupture of the membranes destroys the proper equilibrium of the various forces in a way not easily understood.

Generally something like a storm arises, accompanied with irregular contractions, and, perhaps, tetany of the uterine walls, spasms of the cervix, and pains, sometimes intolerably severe, with diminished expulsive force.

These great changes in the expulsive forces have much more to do with the difficulties connected with the progress of the labor than the shape of the hard presenting part as compared with a bag of water.

I will now give a history of a case occurring in my practice many years ago:

Primipara. Full term. Membranes ruptured Thursday morning. Labor pains commenced the following Sunday morning. The contractions soon became strong and were accompanied by intense pain, amounting to agony at times. Occiput posterior. Administered chloroform. Introduced hand and rotated occiput to the front. Applied forceps; delivered with difficulty. Was mortified to find that the occiput had slipped

to the rear while I was applying the blades of the forceps, and there was a bad rupture of the perineum and pelvic floor.

The treatment of this case was, in many respects, anything but good. The labor occurred at a time when I had rather hazy ideas as to the proper treatment of dry labors. In the first place, I did not take sufficient care of the patient during the two days intervening between the rupture of the membranes and the onset of labor. Next, I administered chloroform myself, chiefly from a desire to save my patient the payment of an extra fee. Next, I gave chloroform badly. Finally my treatment of the occipito-posterior position was faulty.

There was no nurse present, the people were poor and I tried to do the best I could without assistance. In recent years I have not attempted anything of this sort. I desire an assistant who will give all his attention to the administration of the anesthetic, which I wish done in a certain definite manner which I will describe later. Fortunately, in this case, the mother and child both did well, and I was able to repair the injuries to the pelvic floor and perineum by immediate operation.

I will now pass on to speak of later work, giving especially the results of my observation during the last three years. Before doing so, however, allow me to return to the case of the Princess Charlotte and express certain opinions from a clinical standpoint.

After the rupture of the membranes at seven o'clock there was a pause followed shortly by pains which, during the latter part of the night, were very severe. The cervix was probably dilated at about seven o'clock Tuesday morning. Patient was then very tired and almost exhausted. She urgently required assistance, and should have been delivered about eight or nine o'clock, or by eleven o'clock at the latest. Pains were less severe during Tuesday, but became strong again about midnight. Delivery was expected every hour during the first half of Wednesday. Child died, probably during this (Wednesday) morning. Uterine contraction strong, with great suffering Wednesday afternoon and evening. Child born at nine o'clock.

The chief cause of the delay after Tuesday morning was, probably, faulty position of the head, the occiput being posterior. How do I know? you may ask. Well, I do not know, but I feel almost certain that such was the case. Why, I will tell you later. After delivery the patient suffered terribly from exhaustion and shock. There was hour-glass contraction and considerable hemorrhage. There was probably serious injury to the pelvic floor, laceration of the cervix, and a certain amount of necrosis of the tissues, subjected to the prolonged pressure, which would have resulted in a fistula, or two or three fistulae,

had the patient lived. You may think some of these statements are founded on mere guesswork. To a certain extent this is true, but I feel certain that the guessing is nearly correct. We will probably all agree that the patient's life should have been saved, and her suffering should have been greatly lessened.

Before going into details I wish to tell you, in a general way, some things founded on my observations in connection with the last twenty cases I have met.

A small proportion of dry labor cases progress favorably even when membranes have ruptured two to seven days before the onset of labor.

Generally the labors are tedious and painful far beyond the average.

The tremendous storms which sometimes suddenly and unexpectedly arise in connection with the uterine contractions are occasionally accompanied by pains amounting to agony which is unendurable for any length of time.

In many cases where the patient's lives are saved much injury is done through hemorrhages or injuries to the parturient canal.

By judicious treatment the lives of mothers and children can generally be saved, and the sufferings of the mothers can be greatly diminished.

In a large majority of cases the occiput is turned to the rear, and remains so unless the malposition is rectified artificially.

In a small proportion of cases of these occipito posterior positions, the occiput goes to the front naturally.

In a certain proportion of dry labors there is some pelvic deformity, generally contraction of the brim.

I will now refer to a few cases illustrating some of these points:

W. Goldie's patient. Membranes ruptured shortly after onset of labor, and before dilatation of the cervix. Pains very severe, had lasted from morning until half-past four p.m. when I saw her. Patient nearly worn out. Os partially dilated but rather rigid. Vagina not well dilated. Perineum rigid. Chloroform administered, vagina and cervix dilated by fingers and hand; perineum still somewhat rigid. Forceps applied at six; delivered at 6.30; occiput to the left front. Bad rupture of the perineum through sphincter ani and serious laceration of the pelvic floor. Both were repaired by immediate operation.

In this patient, although the membranes were ruptured fairly early, the head acted as a ball valve so well that the liquor amnii was not all evacuated until the cervix was partially dilated, but was evacuated too soon to allow an easy normal labor. I think it might have been better if greater effort had been made early in the morning to diminish the pains, but at

that time no physician was present. You will notice that we had an occipito anterior position. I wish to state, however, in this connection what I will repeat later, that this was the exception and not the rule in cases where early rupture of the membrane occurred.

J. G. Caven's case. Pregnancy advanced eight months. Uterus distended from hydramnios. May 3rd, pain in abdomen considerable; May 7th, 8th, 9th, pain severe with some tetany of the uterus, relieved by hypodermics of morphine. May 10th, labor commenced; seen by Crawford Seadding in consultation. May 11th, noon, first seen by myself. Uterus in a condition of tetany; membranes kept continuously tense; slight dilatation. Membranes punctured. Saw her again in the evening. During afternoon forceps applied and slipped. The pains had been very severe. We presume, from the slipping of the forceps, that there was some abnormal head presentation, the nature of which we could not for a time discover. Chloroform administered. Occiput found to be towards the left posterior, rotated to the front by the hand: forceps applied; child delivered.

The puncture of the membranes in this case changed it from an ordinary difficult labor to the so-called "dry" labor. When there is tetany of the uterus it is not well to evacuate the amniotic fluid too suddenly. Rapid escape of the waters may be partially prevented by using the fingers or hand as a plug. It might have been better to administer chloroform earlier with the object of relieving the uterine spasm, and puncture the membranes while the patient was still under the influence of the anesthetic. I may say that I know of no treatment for a patient with such symptoms which is entirely satisfactory to me.

I had noticed years ago that among the many varieties and complications of tedious dry labor, malposition of the head was somewhat common. I have recently, however, reached a definite conclusion that in nearly all cases of pronounced dry labor, that is, when the membranes have ruptured before the onset of labor (especially sometime before), the occiput points to the rear. Whether this faulty head position is the cause or effect of the evacuation of the liquor amnii, I do not know.

In the early part of 1899 I happened to have three difficult dry labors within a short time, two of them being the worst I ever saw. In each the occiput was posterior. I then went over some of my notes, and found that such complication was more common than I had thought. I have studied the matter somewhat carefully since, and will give you some statistics later.

The following report illustrates what I have already referred to as the great danger which sometimes arises from the extreme pain.

Primipara. An educated, refined, and somewhat delicate and small woman, graduate of the Toronto General Hospital Training School for nurses. Married to a physician living in Ontario. Came to Toronto for her accouchement, and was staying at the house of a friend before coming into a private ward at the Burnside. The membranes ruptured one morning, without warning, and she at once went to the hospital. Walked about a great deal during the day with the hope of bringing on labor pains. The following day she did more walking until she became weary, and yet no pains appeared. About eight in the evening she was lying on a couch, but got up somewhat hurriedly and went into the next room to look for something she wanted. She was then seized with severe pains. Dr. Smith, the resident interne, and Miss McKellar were upstairs looking after a patient suffering from post partum hemorrhage, and did not get down stairs to our patient for about half an hour. I was sent for, but did not reach the hospital until nearly ten o'clock. I found the patient exhausted, and suffering so terribly that I feared she would go into convulsions, notwithstanding the fact that a little chloroform had been administered. I have since been told by Miss McKellar that she never before nor since saw a patient suffer such agony for an hour. I ordered chloroform to be administered to the surgical degree as rapidly as possible, while I was preparing. I introduced first fingers, then whole hand, into the vagina, dilated the cervix with fingers and hand, rotated so as to bring occiput to the front, applied the forceps and delivered, operation being completed at eleven o'clock. The patient made a good recovery.

I want you to notice especially, in connection with this report, that great efforts were made by Miss McKellar, Dr. Smith, and, to some extent, myself, to get the woman to exert herself as much as possible with the hope of hurrying the onset of labor pains. I have lately come to the conclusion that such efforts are decidedly injurious. I think that the patient should keep as quiet as possible, and, generally, in bed. I would not say that it is always necessary for a woman to remain constantly in bed, especially when the membranes rupture many days before labor commenced: but I certainly think that she should keep as quiet as possible, and not do anything which is likely to make her tired. I think that, in this instance, the terrible nerve storm which attacked this delicate little woman, was to some extent due to the fact that she was partially worn out before the pains commenced.

Kennedy McIlwraith's case. Primipara. Membranes ruptured a week before labor. After onset of labor pains went on fairly well. Child expelled normally with occiput to the front. The labor would have been quite uneventful except for the accident of a somewhat bad rupture of the perineum, which was restored by immediate operation.

I mention this case simply to show that what one might call an extreme form of dry labor may occur without any serious complication.

Primipara at Burnside. Labor forty hours. Liquor amnii discharged thirty hours before delivery. Occiput posterior. Under an anesthetic hand introduced into the vagina and unsuccessful effort made to bring the occiput to the front. Applied the forceps, delivered, occiput remaining posterior. I may say that I think the patient, in this case, was not well managed, and would not be treated in the same way to-day. Without going into full particulars I can tell you briefly that she should have been delivered about ten hours earlier instead of waiting until the soft parts were fully dilated and the head jammed down in such a way that rotation was impossible. Chloroform should have been administered sooner, the parts should have been dilated artificially, malposition corrected, and the child delivered by forceps.

Before speaking of treatment I wish to refer to a few points in connection with my last twenty-one cases. In eleven there were difficult occipito-posterior positions: in five there were occipito-posterior positions with natural rotation of occiput to the front: in five there were occipito-anterior positions. I am not certain as to the exact truth in the last two sets of cases, that is, the cases of occipito-posterior positions which rotated naturally to the front and the ordinary occipito-anterior cases. There must generally, or frequently at least, be some doubt whether an occipito-anterior position was not originally an occipito-posterior. By external examination we can nearly always discover at once whether the occiput points to the left or right, but we cannot always decide with certainty as to whether it points to the front or the rear. By internal examination we cannot get any information on this point in a fairly large proportion of cases early in labor because, we cannot reach the presenting head.

In difficult occipito-posterior cases the occiput was rotated to the front manually in seven cases and kept in such position until the forceps were applied. The occiput was manually rotated to the front, but slipped to the rear again while the forceps were being applied, in two cases. The occiput could not be rotated to the front without too much violence in two cases.

TREATMENT.

Before giving definite rules as to treatment, I will make a few clinical remarks regarding two cases occurring within the last month.

A. B., I. para. Membranes ruptured at 9.30 a.m. Seen by me 10.45 a.m. Patient had had no pains. By external examination the back of the child easily discovered on mother's right, and slightly posterior. Within a few minutes I was able to make the following diagnosis. Dry labor, head presenting in second or third position. By internal examination I could make out absolutely nothing as to presentation.

I refer to this particularly because I fear that examination during pregnancy and labor by external abdominal palpation is not employed in this Province to nearly the extent that it should be. This particular case furnishes an instance, by no means infrequent, of the vast amount that may be learned in the easiest possible way by external examination.

I have made my diagnosis, in part at least. What is my prognosis? The condition is serious, I think of the various dangers to which I have alluded, and I desire to avoid them. I have no idea that I can make the labor easy, but I feel that I can guard against most of the dangers, if not all. I order rest and quiet as much as possible. The patient told me she would like to get up "to look after a few little things." I agreed at once, largely because I did not wish to lay down iron rules which might cause some exaggerated views as to dangers, and thus cause alarm in the patient. At the same time I told husband and nurse I wanted none, or as little as possible, of that "moving about" which is so dear to some midwives and accoucheurs. She got up, put on a wrapper, looked after her "few little things" and returned to her bed. An enema was then administered. When slight pains commenced at 1 p.m. three doses of chloral were given at intervals of twenty minutes, and appeared to afford some relief. At 3 p.m. some dilatation of the os, occiput to the right posterior. At 5 p.m. a little chloroform during pains; occiput apparently coming to the front, uterine contractions accompanied by severe pains. At 6 p.m. chloroform almost to surgical degree; occiput found to be anterior, os fairly well dilated. Chloroform to obstetrical degree another hour. At 7 p.m. chloroform to surgical degree, forceps, easy delivery. Placenta separated in about fifteen minutes, expressed in twenty minutes. Uneventful recovery.

In this case it appeared to me that the rest, the chloral and the chloroform, all did good. In addition, I think the applications of the forceps and delivery fairly early prevented spasm of body or neck of uterus and also the nervo-muscular storm

which might have ensued if operative interference had been delayed for one or more hours.

III. para. Pains commenced at midnight, membranes probably ruptured in about half an hour. Saw her first at 1.45 a.m. Nurse gave her a hot bath and enema. The patient was then kept quiet in bed. I do not wish you to think that I consider that in all prolonged labors the patient should be kept constantly on her back in bed, but I think it is never wise to put the patient through any vigorous course of gymnastics, walking or otherwise, for the purpose of bringing on labor pains. I have a firm conviction, however, that in all cases of dry labor it is especially important to keep the patient as quiet as possible without going to any absurd extremes in the matter.

I refer especially to this point on account of the fact that many of our best and most conservative obstetricians have laid down rules directly opposite to those which I am now giving. For instance, Galabin, one of the best obstetricians in the world, says that in the interval between pains the patient should be "up and moving about as much as possible."

Pains became fairly strong about three o'clock and were accompanied by much suffering. At 3.30 and 3.45 chloral given in fifteen grain doses. After four, pains were exceedingly severe with very short intermissions. The chloral had done absolutely no good. What should one do now? Would it be well to keep the patient again in a hot bath and then give her a hot douche, for instance, a solution of lysol for some fifteen or twenty minutes? No. Under such circumstances the hot bath and the hot douche are absolutely worthless, the storm is coming on and will soon be in full force unless you act promptly and vigorously. At 5.30 chloroform given to the surgical degree by Dr. Hutchinson. Chloroform had a marked influence on cervix, vagina and perineum. Parts were dilated by the hand. In a few minutes forceps applied: easy delivery. Mother and child both did well.

After what I have already told you in connection with these cases which I have reported, I may give my general directions as to treatment somewhat briefly.

DIRECTIONS AS TO TREATMENT.

Put the patient in a hot bath and administer an enema. I need say nothing special as to these procedures because they should be carried out as a matter of routine in all cases of labor.

Keep the patient quiet in bed. While it is not necessary to consider this an absolute rule I think it well for you to bear in mind the fact that excessive fatigue, or even a slight amount of weariness, may do considerable harm in all cases of dry labor, as I have before pointed out.

Give chloral in all cases of dry labor, as soon as the pains commence. In those cases where the membranes rupture days before the onset of labor it may be well to give two or three doses of chloral about bedtime. As directed years ago by Playfair, give fifteen grains every fifteen or twenty minutes for three doses.

Give chloroform to the obstetrical degree when the pains become very severe. It is not easy to give any definite rule as to how much chloroform should be administered in such cases. We must always bear in mind the fact that the administration of large quantities of chloroform may be followed by very serious results, especially by post partum hemorrhage. Having this in view we ought to be exceedingly careful about the administration of chloroform early in the first stage or perhaps at any time in the first stage.

I have already referred to certain cases in which the dilatation could be very much hastened by manual interference while the patient was fully under the influence of the anæsthetic; but one does not like to give much chloroform when the os is very slightly, or not at all dilated.

If it happens, however, that you see a patient who has been in dry labor for many hours, and find that she is considerably exhausted, and that there is, at the same time, spasm of the cervix or Bandle's ring, or of the whole body of the uterus, chloroform may be administered as follows: Administer chloroform to the surgical degree perhaps for twenty minutes. The patient may shortly afterwards waken, feel much refreshed, and the spasm may be greatly or wholly relieved. In other cases it may be well to give chloroform for a short time, followed by hypodermic injection of morphine, allowing the patient to have a comfortable sleep, after which the condition will be found to be greatly improved.

Make it a rule always to terminate labor as soon as possible even when there is considerable rigidity of the perineum, vagina and cervix. Remember, as I have before told you, the administration of chloroform nearly always makes a vast difference; the parts become, if not dilated, much more dilatable or stretchable than they were. After the patient is completely anesthetized introduce, first, fingers, then hand slowly into the vagina. Dilate as rapidly as you can without using any force which is apt to injure the parts. Then dilate the cervix sufficiently to allow the hand to pass into the uterine cavity.

MANUAL ROTATION.

Seize the head between the thumb and the one side and the fingers on the other, and rotate the occiput to the front; at the same time, with the external hand push the shoulder in the

same direction in which you have rotated the occiput. When, as is most commonly the case, the occiput is turned to the right rear; the back of the left shoulder will be found above the pubes; with the external hand push the shoulder towards the mother's left side. If you succeed in pushing the shoulder over, the occiput will not slip back; if you do not succeed in moving the shoulder the occiput will very readily, as a rule, slip to the rear. If you are not able to push the shoulder with the external hand, it is sometimes a comparatively simple matter to push the internal hand on past the head and rotate the body of the child in such a way as to bring the shoulder in its right position, with the back of the child towards the mother's front, instead of towards the right side. If you are not quite certain that you have got the body of the child in the right position, and especially if you find the slightest tendency in the occiput to slip backwards, try and hold it in position until you have introduced one blade of your forceps. This will generally keep the occiput to the front until you have applied the second blade.

If you have applied the forceps deliver in the ordinary way, not too rapidly—at the same time without losing any unnecessary time.

I shall not here discuss the various methods of rotating the occiput to the front which have been described; I should simply say to you if you know any better method than that which I recommend employ it. Years ago I was not successful in all cases in pushing the occiput to the front with my two fingers, as recommended by many authorities abroad, and especially James Ross, sr., and Algernon Temple, of Toronto.* Having a small hand I often found it much more easy and much more satisfactory to introduce the hand within the vagina and employ it in rotating. So far as I know Batailliard was the first who definitely described this method of manual rotation of the occiput forwards. During the last few years this method has been employed by a fair number of accoucheurs in the United States and Canada.

I do not intend to refer to any further extent now to difficult occipito-posterior positions, but I may say briefly that I consider that in the great majority of cases the most difficult of such positions are those which occur in connection with dry labor.

* Since reading this paper I have learned that my reference to Dr. Algernon Temple is not correct. Instead of using one or two fingers, as I have intimated, he anesthetized the patient, and then introduced whole hand into vagina, seized the head between the points of the fingers and thumb in the interval between pains, and rotated the occiput forward. He described this procedure in October, 1887.

THIRD STAGE OF LABOR.

I have not, as a rule, found any special difficulty in connection with the delivery of the placenta. I may refer, however, to one notable exception occurring in my second year in practice. Patient had been attended by a midwife, having a very long, tedious and extremely painful labor. Child was expelled without assistance. I was called in on account of the post partum hemorrhage. I found retained placenta with hour-glass contraction of the uterus. Treated her in the ordinary way by dilatation of the contracted ring and delivery of the retained placenta. Patient made slow recovery.

I would simply say then, deliver the placenta in the ordinary way, having due regard to the various complications which may exist.

Watch the patient with a little more than ordinary care for one hour after the completion of labor.

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PRESIDENT'S ADDRESS—BEFORE THE TORONTO CLINICAL SOCIETY.

By EDMUND E. KING, M.D.

Fellows of the Clinical Society:

It is with a sense of deepest appreciation that I desire to thank you for the high honor you have done me in electing me to the position of Presiding Officer for the present year. The Clinical Society I consider to be the most progressive Medical Society in Toronto to-day, and I hope that during the coming year it will not in any way deteriorate. To follow in the footsteps of such men as have previously occupied this chair makes the position one of considerable difficulty. These gentlemen have all done the Society honor and credit, else we would not have the progressive Society that we have to-day. I hope that during the coming year the members will take a greater personal interest in the Society by presenting clinical cases, and in discussing the communications presented by the Fellows. It is neither fair nor just to gentlemen presenting cases and papers before us that they should not be received with free, open and frank discussion. We are here to help one another, to give each other the benefit of our experiences, and to reap the advantages which accrue from the scientific presentation of clinical medicine and surgery. The free and open discussion of papers brings out material that is of advantage to everybody, and allows each to have the benefit of the other's experiences. It is not necessary to be verbose in order to be instructive, nor to take a great length of time in medical discussion, in fact this is a place where brevity is highly appreciated: at the same time we should not be too brief by remaining silent. I hope that during the year the members will endeavor as much as possible to confine their communications to clinical conditions, and as often as possible accompany them with the presentation of patients. Didactic communications are undoubtedly beneficial, but in a clinical society they are not as much in place as those that deal with the clinical aspects of disease. It is well in every case possible to have patients presented, but too often these patients are brought without either a written or well prepared history. Speakers owe a debt to the Society and they should not waste time. If the history is written out before and presented precisely, time is saved to the whole Society, and the case is presented in a much clearer and more instructive form than when the history is given in a rambling way. During the year we have only seven regular meetings, and with a membership of sixty it

would allow eight members to present original communications at each meeting, this would be altogether too many for the limited time at our disposal, consequently, if four members would undertake to supply the material for each meeting only one half of the Society would have an opportunity of being heard from in communications. It is my intention, with the acquiescence of the Society, to devote at least four of these nights to symposia dealing with the several aspects of selected subjects, conducted by gentlemen who have paid particular attention to the various branches discussed. I think that by doing this we will be able to increase the quality of the papers produced and the interest of the general members. This method has been tried in some of the large societies on the other side of the line, also in the old country, with great success. I am aware that it is more difficult in a Clinical Society to have these symposia than in other medical societies. I feel that if the Fellows will interest themselves in the matter that they can make their communications all have a purely clinical basis. It is my painful duty to refer to the great loss this Society has sustained in the death of Dr. Bertram Spencer, one of its oldest members and most regular attendants. He was a gentleman whose personality was exceedingly pronounced, whose enthusiasm in his profession was great, and whose interest in the Clinical Society was always apparent. The Society has lost a valuable member, and the profession in general has lost a faithful and upright worker.

In looking about me for a subject on which to make some remarks at this opening meeting, I was at a great loss to find one that would be of general interest to everybody, and still not one that had been over-worked. While I was contemplating this matter I received from a physician on whom I had operated a year before, for the removal of a prostatic obstruction, the following communication which caused my thoughts to drift towards the prostate:

MY DEAR DOCTOR,—A year ago last night I entered St. Michael's, and a year ago either to-day or to-morrow I was on the operating table. I am sending you this line to report results. Probably the best way I can do so is to give in detail my work on Monday last. I commenced at 5 a.m., and attended two confinements—one a breech presentation, drove in all during the day forty miles over rough roads, attended to three other patients, and wound up at 10 p.m. with two life insurance examinations. A pretty good day's work for any man I think. Slept the sleep of the just that night, and except feeling properly tired was all right the next day. I am really very well, and except that I have to take things slowly, feel as well as I have any time this last five years. When my

bladder bothers me I take ten-grain doses of urotropin once a day for a couple of weeks, and that sets me up for some time. I use a good deal of this drug with my elderly patients and can generally rely upon its being of service to them.

Gratefully and sincerely yours.

I was then confronted with the difficulty of what was the best method of presenting the subject to the Society. Of recent years I am very glad to say that surgeons have devoted a great amount of attention to this particular subject. The operative technique is being improved very rapidly, and it is to be hoped that before very long it will be placed in a very much better position even than it is to-day. It is rapidly assuming its proper status, and I look forward to the not far distant day when sufferers from this common malady will have relief assured them from comparatively safe surgical methods. In reading the many reports in the medical press, in looking at the text-books in surgery, in referring to some of the latest works in pathology, I find that the prostate and its diseases are frequently entirely omitted; the references that are made are to a large extent copied verbatim from works that have preceded, and contain the errors as well as facts. I am unable to find in any single volume enough material to enable one to thoroughly understand the prostate and its pathological changes. The conditions that arise, owing to the changes that occur in the gland, are of greatest importance, and are of themselves responsible for a considerable loss of life, and an exceedingly great amount of suffering and inconvenience, to such an extent that I feel that I need not apologize further for presenting the subject, probably anticipatory of its clinical condition. I intend, as briefly as possible, to draw your attention to the gland, its development, its quiescent state, the changes that are liable to occur, and to refer to some of the means devised for the relief of these changes.

In making any remarks concerning the prostate, its pathology and treatment, the name of Sir Henry Thompson must stand out prominently. His Jacksonian Prize Essay of 1857 is to-day a classic. He was the pioneer in this brand of surgery, and so thorough was his work that in most points we still accept his data as true. On the point of surgical interference, however, we are gradually moving on. His statistics show that 34 per cent. of males who reach the age of sixty years suffer more or less from enlargement of the prostate, and that from 15 to 16 per cent. suffer in a considerable degree. He says further that it is a rare thing to find that enlargement produces trouble before the fifty-fifth year, and adds: "I have

never been able to meet with an instance of its recurrence at so early a period as fifty-five years." He says that in 70 per cent. all portions of the prostate enlarge with about equal frequency, the middle portion in about 13 per cent. This latter figure is to some extent refuted by other writers, Watson and others, who hold that the middle lobe enlarges much more frequently. It is an undoubted fact that the troubles consequent on middle lobe enlargements are much greater than those consequent on lateral enlargement. Any pathological condition that involves the health and lives of so large a proportion of males surely deserves the closest attention of surgeons toward its relief.

It is one of the unsettled questions, however, as to the cause of prostatic hypertrophy. It has been ascribed to a general senile change which involves the arteries, the kidneys, the organs in general, including the prostate. This was the early teaching of French schools, and is yet maintained by them. Most men resent being classed senile at fifty-five years, and some do not care to admit the term at any age. Velpeau, Sir H. Thompson and Prof. White are adherents of the doctrine which looked upon the enlargement of the prostate and fibroid disease of the uterus as analogous. Reginald Harrison says that the primary change takes place in the bladder, and that the prostatic enlargement is secondary and compensatory.

The senile theory is really the least tenable of the three. Many instances are on record of large, true hypertrophies existing below the age of thirty years. If it was simply a local evidence of a general systemic change, of what advantage would operative interference be? The removal of the enlargement would not help the general systematic condition, it could in no way improve its arterial sclerosis. We know that after the removal of the hypertrophied gland or the obstructing portion, the bladder regains its function and often the sexual power returns, while numerous reports show that it is of quite frequent occurrence around forty years.

The prostate is not the analogue of the uterus, consequently there is no morphological reason why they should each develop similar changes. The uterus is a muscular organ, the prostate is glandular, the tumors of the uterus are fibro-miomata, while those of the prostate are glandular. The prostate undoubtedly contains a great deal of muscular tissue, but its tumors are of the glandular type. That these growths are prone to occur both in uterus and prostate at the same period of life is quite probably a coincidence. I have had during the past five years many cases of enlargement of the prostate accompanying seminal vesiculitis, in which the glands shrunk back to normal size after the seminal vesiculitis was cured.

It is to my mind clear that the chronic inflammation of the vesicles are responsible for the prostatic enlargement. I am quite aware that this enlargement, which gets better under treatment indicated, is not the true hypertrophy, but I contend that it is the beginning of chronic true hypertrophy. I propose during the winter to present a report on a series of these cases which will bear me out in these remarks. Sexual activity or over indulgence may be a cause for this hypertrophy in those predisposed to the condition. In the 66 per cent. of males who do not develop the trouble, we find that those who reach very old age are in no way inconvenienced by urinary disorders.

When we recognize that the removal of the thyroid gland produces marked changes throughout the body, that the removal of the uterine appendages causes great diminution of uterine fibroids, it is not hard to imagine, as Mansell Moullin points out, that certain conditions of the testes may stimulate the prostate to increased and irregular growth. When we remember the changes that take place in the region of the prostatic urethra, in the veru montanum, in the vas deferens, the ejaculatory ducts, etc., at the time of sexual excitement, it is not hard to imagine that these conditions may eventually produce permanent changes, or at least provide the necessary stimulus to the quiescent parts to take on active pathological change.

The prostate gland, or as some writers prefer to say, glands, is situated at the base of the bladder and extends forward to the triangular ligament. The urethra passes through the gland, is not always, but usually, completely surrounded by the gland; but the portion in front of the urethra is smaller than that behind, and frequently absent. It is pear shaped, with its base toward the base of the bladder, and its apex at the triangular ligament. When the gland takes on pathological changes, it enlarges laterally, backward, and upward toward the bladder, but not forward of the triangular ligament. The weight of the normal gland is from four to six drachms, its length is about one and a half inches, breadth one and a half to two inches, and thickness three-quarters to one inch. It contains in its substance a sac—the utriculus—which opens into the urethra in the middle line just in front of the veru montanum. This sac is the analogue of the uterus and vagina, it is lined with a single layer of columnar epithelial cells on a thin basement membrane, it is developed separately from the prostate and is included within the gland during its progress of growth. I am enabled through the kindness of Prof. Primrose to show you a very beautiful specimen of over-development of the utricle, which very clearly demonstrates the true situation.

In the latter month of fetal life the prostate consists of two distinct lobes, and at the time of birth is situated entirely behind the urethra, it consists of a number of tubules, embedded in connective tissue stroma, rich in non-stripped muscle cells. These tubules are the outgrowths from the prostatic sinus on either side of the veru montanum. The portion of the urethra from which these tubules arise is developed from the urogenital sinus. The middle portion or middle lobe arises from tubules distinctly separate from the lateral ones, which are situated between the neck of the bladder and the veru montanum. The gland tubules continue to grow and branch into and between the facicle of the muscular stroma, and the development of the gland is established. Thus we have three distinct centres from which the gland develops. In cases in which that portion of the urethra between the neck of the bladder and the veru montanum does not contain tubules, no middle portion is developed, but this condition is rare, and the presence of the middle lobe can be taken as existing in the greater number of cases. The existence or non-existence of a third lobe has been a great bone of contention ever since it was first mentioned. Sir Edward Home, in 1806, announced to the British Society the existence of the third lobe of the prostate. He thus was enabled to account for bladder conditions found in cases when the lateral lobes were not materially developed. I find in Guthrie, "Anatomy and Diseases of the Urinary and Sexual Organs," edition, 1836, page 21-23: "There is another thing no less remarkable; it is that it is quite clear from the remains of Mr. Hunter's papers, etc., that he had anticipated Sir E. Home in every point connected with the subject." I do not wish to enter into any controversy over the priority of discovery, but in all the literature at my command Sir Edward Home is credited with the first announcement. I have here to-night the original Hunter engravings; and while I am not able to produce the original text, it is perfectly clear that the drawings distinctly show the existence of the middle lobe enlargement. Also in the original edition of Guthrie above quoted, there is one of the most perfect illustrations of the middle lobe conditions that one could wish to see. The engraving and coloring of this illustration would put to shame most of the colored illustrations of the present time.

The prostate is surrounded by a distinct and firm capsule. The gland is not intimately attached to the bladder, that is, it can be separated quite freely for a considerable distance, until it reaches the urethra. It is quite possible also to separate it here and extirpate the whole gland without injuring the urethra, particularly in those cases where the anterior portion of the gland is absent. At the apex the capsule is lost in the triangular ligament.

The prostate is not one of the urinary organs, as seen from its development, it does not in any way aid in the expulsion of urine, excepting in supporting the urethra which passes through it. It is often spoken of as if in some way acting as the sphincter of the bladder. The external sphincter of the bladder is just anterior to the apex of the prostate Henles muscle, which blends with the compressor urethræ. Guthrie, *loc. cit.* very clearly pointed out this fact. It is a well known fact that the bladder after being evacuated is collapsed, its walls are in contact, and its muscular walls contracted, as it gradually distends the muscle slowly relaxes, but still it maintains a close contact on the contents; this is continued until a certain point of distention is reached when the muscle around the neck is overcome. If from whatever cause the distention of the bladder does not cause the muscle at the neck of the bladder to relax, retention ensues and the bladder muscle continues to distend until the elastic tension of the wall causes the muscle at the neck to relax sufficiently to let the urine dribble away drop by drop, but the urine dribbles into the prostatic portion of the urethra and causes this to distend to a sufficient degree so that it in reality becomes a portion of the bladder cavity. Here the external sphincter, Henles muscle and the compressor urethræ come into play. The late E. Finger, of Chicago, draws particular attention to this condition of the prostatic urethra as follows:

"If we introduce an elastic catheter into the urethra of a man who has as yet no desire to urinate until the urine begins to escape, and measure the portion of the catheter thus inserted, and then do the same thing with the same subject when the bladder is full and desire present, we always find that in the latter case the length of the catheter necessary is from two to three cm. shorter, and that as a matter of fact the urethra is so much shorter with a full bladder. Repeated experiments carried out on healthy persons showed that with a moderately full bladder the urethra was eighteen to twenty-one cm. long, with a full bladder and a desire to urinate it was sixteen to nineteen."

The prostate is a sexual gland, and is affected by changes in development of the other sexual appendages, which are intimately connected with it. In cases where the vas deferens on one side fails to develop that half of the prostate is also deficient in development, although the testicle may be perfectly developed. In many mammals the lobes of the prostate are attached to the ejaculatory ducts at some distance from the bladder. Mr. Griffith, in his elaborate studies on the prostate, confirms the previous observation of John Hunter and Owen, that during the rutting season in certain animals, moles and

hedgehogs, the prostate enlarges to a very considerable extent, and contains great quantities of mucoid secretion, while in the quiescent season the gland is very small and free from secretion. These glands remain in this state to again increase in the next rutting season. John Hunter was the first to draw attention to the difference that existed between the prostate in the bull and the bullock; in the former the prostate was soft and bulky with a quantity of secretion, while in the latter the gland was small, flabby and tough with little or no secretion. Griffith has confirmed this in the dog and cat in several instances. In Eunuchs these observations are confirmed; one author, Pelican, reporting that the prostate in cases in which he had made examinations was about the size of the prostate in the child. These cases are, however, ones in which the development of the gland has been stopped, and are not quite analogous to those who are castrated later in life. In these latter the operation is done to cause shrinking or retrograde change in prostates that have taken on pathological change while the testicles were still present.

The ejaculatory ducts pass through the substance of the prostate to open into the urethra on either side of the veru montanum by eight or ten openings on each side. The prostate is said to act as a sphincter to these ducts and prevent the gradual leaking away of its secretion. The muscular stroma is so situated around the tubules of the gland that the contents are squeezed or compressed out of the gland into the urethra at the time of or just before ejaculation. It mixes with the seminal fluid and is essential to its procreative power. The secretion is of a clear, viscid mucus character, with a distinctly fishy odor. When the prostatic secretion is absent, notwithstanding the presence of active and numerous spermatozoa, they are void of impregnating powers. I have endeavored to present the development and histological character of the prostate in as condensed a form as possible, and I quite readily recognize that in being brief on these matters, one may sacrifice clearness to brevity. This I have tried to avoid.

In taking up the subject of treatment of prostatic hypertrophy, we have to deal with it from two distinct aspects, one palliative, the other radical. It is striking with what boldness the earliest authorities struck out, and to note how we are to-day treading in their footsteps. While the technique of to-day is different their method and means of accomplishing the same results bear a very intimate relationship to ours. *The palliative treatment come under four headings:

1. The constant use of catheter.
2. Perineal drainage, through retained tube.
3. Supra-pubic puncture with retained tube.
4. Supra-pubic cystotomy with retained tube.

The highly instructive work of Guthrie, *loc. cit.*, contains the earliest description of the supra-pubic treatment, based on a most excellent comprehension of the pathological conditions.

I cannot refrain from quoting what he says about cases where it is impossible to pass the catheter. It differs in very slight detail from what we do to-day under similar circumstances. On page 250 we find :

"This operation is to be done by making an incision in the central line two inches long, from over the edge of the pubes upwards, as in the high operation for the stone. The muscular wall is then to be divided close to the bone, which may be done by a trocar bistoury which is made for the purpose, or by a straight sharp bistoury in the beginning, followed by one with a blunt extremity, so that the forefinger may, when introduced through the opening, feel the distended bladder rising up toward the umbilicus. If the bladder is so small that it cannot be felt in this situation this operation ought not to be done, for the peritoneum will not be carried high enough up on its anterior surface, to leave a space below it in which the trocar may be pushed without fear of its penetrating above the peritoneum, and thus entering the cavity of the abdomen instead of that of the pelvis. The bladder being, however, duly distended, the trocar is to be pushed in downwards and backwards, with due attention to the axis of the pelvis, and the trocar and canula should both be long so that the canula may be well introduced after the bladder has been duly punctured, and its escape in this way prevented when the bladder collapses or contracts upon it. A round pointed flexible elastic catheter should be carried into the bladder through the canula, and when this silver instrument is supposed to cause irritation it may be withdrawn over the catheter. If it is done in the first instance the hole in the bladder will be larger than the catheter, and if the patient turns in bed some urine may escape by the side of it and do great mischief. This will be, however, I think, prevented by keeping the plug or stopper out of the catheter when the patient sleeps, and by having a long external bladder attached to receive the urine which trickles from it." But Mr. Guthrie saw farther ahead, recognizing that these efforts were only palliative he looked toward some operate interference which would produce a radical cure. This was to be through the perineal route. We find him consulting his confreres, and one of them, Sir William Blizard, loaned him an unpublished paper that he had read in 1806 before the Medical and Chirurgical Society on the Diseases of the Prostate. I quote from Blizard's paper (Guthrie, page 253, where he says :

"I am disposed to think this person might have been suc-

cessfully treated by dividing the prostate by a double gorget cutting on both sides, introduced in the usual way on a staff into the bladder. It would have removed the immediate distress and might have laid the foundation for a cure. This is not a speculative remark. I have several times performed such an operation in cases of disease of the prostate gland, which I have thought within its scope of relief with complete success." We see that Sir Blizard, the pioneer of prostatic surgery, not only recognized the necessity of radical procedures, but was equal to the situation. When we remember the terrible ordeals of a surgical operation in pre-anesthetic days we must fully recognize the heroic efforts of both surgeon and patient. So much for the palliative means. The radical procedures :

1. Prostatotomy—Division of the obstruction at the neck of the bladder by a cutting instrument introduced through the meatus. Guthrie, Civiale, Mercier, Gouley, etc.

2. Prostatectomy—Removal of a portion of the middle lobe enlargement by snare or cutting instrument introduced through same channel. Mercier, Gouley, Teevan.

3. Prostatotomy and prostatectomy done through a perineal urethrotomy. Harrison, Amundale, Keyes, Belfield, Cabot.

4. Channeling the enlargement through external urethrotomy. Harrison.

5. Supra-pubic prostatectomy and removal of the enlargement through the bladder. Belfield, McGill, Dettel, etc.

6. Prostatotomy by galvano cautery through the urethra from meatus. Bottini.

7. Injections of iodine into the substance by the gland. Heine.

8. Electrolysis by instrument pressed through meatus Newman.

9. Electrolysis by needle puncture. Biedert, Caspar.

10. Removal of whole gland through a large perineal incision.

11. Double castration. White.

12. Removal of the gland with its capsule through supra-pubic opening. Freyer.

13. Vaserection, double. Harrison.

14. Removal of whole gland through a large perineal incision aided by a supra-pubic cystotomy. Bryson.

15. Removal of the whole gland through a perineal incision, aided by a retractor or depressor in the bladder passed there either through the meatus or through an external urethrotomy. Ferguson, Murphy Signs, etc.

There are other details of operations which I have not mentioned, but they are modifications of these and require no special mention.

1. Prostatotomy—Guthrie devised a concealed knife which was made to protrude after the instrument was in the bladder and cutting forward. Mercier, Civiale and others, all made their instruments in the same way.

2. Prostatectomy—Mercier went further and devised an instrument which resembles the lithotrite: it consisted of two blades, one cutting and one blunt, the cutting blade is worked by a screw at the head. After the instrument has entered the bladder it is opened and turned open-jawed to the base of the bladder, one blade is dragged forward over the obstruction. The obstruction now being between the blades, the cutting one is rapidly pushed down and a piece is removed, this is caught by a fork in the instrument and forcibly withdrawn along the urethra. The results obtained were not very satisfactory, however. Similar proceedings were done through the perineum, and Harrison had considerable success by removing a V-shaped portion with a straight bistoury through the external urethrotomy. Belfield, of Chicago, in 1886, reported his experience with an entirely new method of attacking the enlargements. McGill, of Leeds, in 1888, brought to the attention of the Clinical Society, and in 1889 before the British Medical Association, a report of his work in exactly the same line. The operation is now known as McGill operation, and has been the means of affording relief of symptoms and permanent cure to great numbers. The technique of this operation is quite familiar to you all, consequently I will not go into detail, excepting to impress the fact that McGill strongly urges that the enucleation be done by the finger and not by cutting. The operation is greatly facilitated by pressure forward of the tumor mass by the disengaged hand or an assistant's hand in the rectum.

The electrolytic and cautery treatment has not given the success that was hoped from them. There is always reluctance to adopt measures of surgical interference that have to be done in the dark. Where you cannot see what you are doing you may possibly be doing just a little too much, or not quite enough. Bottini, of Milan, formerly of Pavia, first published his methods in 1874. He has had, and is yet having, great success by his method. The difficulties in the way are quite formidable however. The electric current has been the main difficulty that has to be contended with here. It is with the greatest difficulty that one can get a suitable portable battery. The heat frequently causes the knife to buckle, and a cutting operation has to be done to release the instrument; severe hemorrhages have followed, and in fact, it is like a great many other operations, the originator secures better results than his followers. The mortality is low, but high enough to cause the surgeon to pause and consider if other and more scientific pro-

cedures are not better. Watson, of Boston, in 1888, after very exhaustive research, leaning strongly at the time to the fascinating Bottini methods and Watson's modifications, came to the conclusion that removal of the obstruction through the perineum, or by the supra-pubic route was the most rational and scientific method of treating the disease.

Then followed White, of Philadelphia, with his most elaborately worked out detail of reasons why double castration should ensure a permanent shrinking of the hypertrophy gland. According to the development of the gland, and from the analogous shrinking of the prostate mammals under similar circumstances. He based his ideas on physiologically sound facts. His results were excellent, but the mutilation necessary was too much for even aged men to acquiesce in readily, the results were not uniform, the mental effects were frequently serious, so the operation fell into disuse. Reginald Harrison put forward his plea that it was not necessary to castrate, but simply to divide and remove a portion of each vas deferens and thus secure the same end. In a number of cases this proved successful, but the improvement is much slower and not as certain as in castration.

It seems to me evident that so far we must all admit that the operation through the supra-pubic incision gives the best results. It removes most, if not all, of the diseased area, and relieves the distressing symptoms.

Whether we adopt the perineal route alone, the supra-pubic alone, or the combined operation, experience and time alone will tell.

Neither Belfield's nor McGill's is the ideal operation. However, Lieut.-Col. Freyer, of St. Peter's Hospital, London, whose wonderful work in lithrotrity has made him famous, advocates a supra-pubic procedure with which he has had great success. I think I cannot do better than give his own description of the operation, page 108-9.

"To accomplish this, supra-pubic cystotomy is first performed, and the catheter, employed for inflation of the bladder, left in the urethra. The forefinger of the left hand is then introduced through the wound, and a general survey of the bladder is made. The mucous membrane over the most prominent part of one lateral lobe, or over the so-called middle lobe, if there be one, is snipped by scissors, or torn through by the sharpened finger nail. The forefinger of the other hand is introduced into the rectum, to push the prostate prominently into the bladder and to keep it steady in this position. The mucous membrane is gradually detached by the finger nail from the tumor, or prominent portion of the prostate in the bladder. It will be found that this portion of the prostate is covered merely by the mucous membrane of the bladder,

having, in its gradual enlargement backwards into that vicus, burst through its sheath in this direction, so that when the mucous membrane is detached the true capsule of the prostate is at once reached. Keeping the finger point in close contact with the capsule of the prostate, enucleation of the organ from the enveloping sheath is effected by pushing the finger in succession beneath, outside, and above one lateral lobe, separating the sheath from the capsule. The finger is then swept to the inner side of the lobe, detaching this from the urethra, which is pushed upwards towards the symphysis, between the lateral lobes, which will, as a rule, have separated along their superior commissure during the manipulations. The other lobe is treated in the same manner. The finger is then pushed well forward, and the anterior surface of the prostate is peeled off the triangular ligament. By aid of the finger in the rectum the prostate is tilted to one side beneath the urethra, and pushed into the cavity of the bladder, whence it is delivered by forceps. Sometimes the lateral lobes become detached along both upper and lower commissures, and come away separately.

There is, as a rule, very little bleeding from the operation, and this is easily controlled by irrigation with hot lotion through the catheter. A stout drainage tube is placed and kept in the supra-pubic wound for two or three days, after which the bladder is irrigated daily by a weak antiseptic lotion till the supra-pubic wound is nearly closed." I am not able to say more about this method but his results certainly demand a further continuance of work along this line.

In doing the perineal operation many aids are used to bring the prostate further down into the wound. Dr. A. H. Ferguson has a specially constructed sound which very materially aids in drawing down the prostate without making a supra-pubic incision.

Parker Syme uses a rubber bag, introduced into the bladder through an external urethrotomy wound, and distended with water; this he uses as a retractor. J. B. Murphy, of Chicago, has hooks made with which he pulls the gland down well into the perineal wound, and also uses them to help shell the gland from its capsule. These are only a few of the many aids to the operation.

There are many points on which I have not touched, but I have tried in a general way to place before you the subject as concisely as I could. I look forward to very rapid advancement in this branch of surgery, and I hope before the season closes to have reports of many successful operations, and also that amongst the Fellows of this Society we may find some one who will still further improve the technique of prostatic surgery.

Society Reports.

TORONTO CLINICAL SOCIETY.

REGULAR MEETING, Nov. 5th, 1902.

The President, Dr. E. E. King in the chair.

Dr. D. King Smith was elected a Fellow.

Drs. Ainslie P. Ardagh, Orillia, and C. F. McGillivray, Whitby, were elected non-resident Fellows.

Esophagotomy for Foreign Bodies (with patient).—DR. E. E. KING.

This was the case of a girl of about eighteen years of age, who on a Sunday in September five weeks ago swallowed a peach stone, which lodged in the esophagus. Esophagotomy was performed and the foreign body extracted with very little difficulty. Dr. King stated, as regards the X-ray, that it was impossible to take photographs of stones of fruits.

Two Cases of Eye Affection in the Toxemia of Pregnancy.

Notes of these cases were given by Dr. K. McIlwraith. The first case occurred in May, 1901. This patient had been suffering from loss of vision ever since the third month of her pregnancy, which was most marked in the right eye. There was a pretty large precipitate of albumen in the urine. She was confined in May, and her sight gradually and slowly improved until the first week in September, when she was able to see practically as well as she could before the conception took place. At that time she still had the precipitate of albumen in the urine.

The second case was one which Dr. McIlwraith had confined for Dr. Wright in August last. When this patient was first seen by Dr. McIlwraith, she was suffering from tremor of the body and limbs. There was a heavy precipitate of albumen in the urine. She had a very difficult labor, but made a good recovery. On the second day she had convulsions and was treated with salines and a hypodermic of $\frac{1}{2}$ gr. of morphia. When she came too after the convulsions her eyesight was gone. Had the power to distinguish light, but not objects. On the fourteenth day of pregnancy the eyes were examined by an oculist, and there were hemorrhages extending over the whole retina. In both these cases the eyesight almost completely has returned.

Perforating Ulcer of Duodenum.

Dr. George Elliott read the medical notes on this case, which occurred in a man of fifty-eight years of age, who all his life had been a considerable drinker. Two hours after he was seized with acute abdominal pain he was seen by the physician. He had a pulse rate of 75 and a temperature of 97 and 4-5. There was marked rigidity of the right abdominal wall and pain in the right iliac fossa. There was not and had been no vomiting. When seen by the surgeon some twelve hours later there was present general peritonitis and the pulse rate could not then be counted. The usual incision was made for appendicitis, when on the peritoneum being opened a small quantity of gas and much bile stained fluid escaped. Drainage was inserted towards the gall bladder, and the patient returned to bed. Death occurred six hours after. Dr. H. B. Anderson made a post mortem examination and described the result of his findings. There was a perforation in the posterior wall of the first portion of the duodenum that would admit the index finger, probably the largest perforation which has been reported. The appendix was normal.

Multiple Cystic Colloid Adenoma of Ovary.

Dr. H. A. Bruce reported this case and showed the pathological specimen. Twenty days before operation the patient, a married woman of twenty-nine years of age, was practically normal, there being no enlargement whatever of the abdomen. Just before the operation she was as large as a woman at nine months' pregnancy. When the abdomen commenced to enlarge it had enlarged very rapidly. At the operation about three pints of fluid were withdrawn from the cyst.

GEORGE ELLIOTT,
Recording Secretary.

Editorials.

TOWN AND GOWN.

We have in Toronto at the present time probably the finest body of students the city has ever known, and perhaps the finest body of policemen on this continent. Under the circumstances a prolonged "Town and Gown" contest would be a deplorable calamity, ending of necessity in the defeat of the "Gown." For many years the "pranks" of the students and accompanying hoodlums have gone far beyond the bounds of innocent fun and frolic. Wilful destruction of property by students cannot be allowed to continue for a long time in a city like Toronto.

No man has more fully realized the truth of these truisms than Dr. Reeve, the Dean of the Medical Faculty of the University of Toronto, and no man has done more than he during the last five Hallowe'ens to prevent boisterous or disorderly conduct on the part of his students. On each of these evenings he has entertained the whole body of medical students, some recent graduates, and some of the professors. He always provided for his guests a bountiful supply of refreshments, and allowed *the boys* to have a sort of smoking concert. His efforts to prevent his students from engaging in any lawless proceedings have been eminently successful.

After spending a pleasant couple of hours in one of the University buildings on last Hallowe'en, the students walked down towards Queen Street Avenue, accompanied by the Dean and Professors Primrose and Mackenzie. When they reached the vicinity of the corner of College Street and Queen Street Avenue, a body of mounted policemen, under Sergeant Goulding, ordered them to disperse, and at the same time rode among them slashing right and left with their riding whips. It happened that bodies of students and hoodlums had been guilty of disorderly conduct and had destroyed property in various parts of the city earlier in the evening. The police received orders to stop such disorder, and probably to disperse all bodies of men acting in a boisterous manner. The Medical Faculty students were singing college songs when the policemen ordered them to disperse.

The policemen were legally right in giving such an order but were not justified in clubbing them, as they offered no resistance and endeavored to disperse as rapidly as possible.

Looking on the matter from the policeman's standpoint there was perhaps some excuse for the hot-headed conduct of the mounted men. They may have thought that they were dealing with some one of the disorderly crowds, and in their delirium of hot temper felt it their duty to act in an illegal (to put it mildly) manner. It seems a pity that they considered it beneath their dignity to explain or apologize. The party who should be chiefly blamed in this regard, however, seems to be Sergeant Goulding, who in the first place ordered his men to make the attack and set the example as to the clubbing. The Dean stated publicly (and we have every reason to believe his statement was correct) that the students would have permitted the incident to pass if the Sergeant had apologized for the assault after he had discovered his mistake. Instead of doing his plain duty in this respect, his attitude to both students and Dean was at all times extremely offensive. We give in another column the full text of the finding of the Commissioners.

ROSS MEMORIAL HOSPIITAL.

Mr. James Ross of Montreal has presented to the Town of Lindsay a "gem" in the shape of a hospital, which is said to be in all respects first-class. It is beautifully designed and perfectly equipped. The generous donor has presented this handsome gift as a memorial of his father and mother, who were for many years residents of the Town. The building, containing twenty-four beds, with full equipments and furnishings, cost \$75,000. The inhabitants of Lindsay and neighborhood have raised an endowment fund of \$16,000. The hospital will be maintained by the revenue derived from this fund and by the per capita allowances of the Town and surrounding counties which send patients.

The hospital was formally opened to the public November 20th, when a large number of guests were assembled. After a brief stay at the hospital an adjournment was made to the Collegiate Institute, where an address was presented to Mr. Ross.

Among those present were the following from Toronto: Drs. Temple, O'Reilly, Ryerson, Bingham, Ross and Maclellan. The superintendent of the new hospital will be Miss Scott, a graduate of the Toronto General Hospital Training School for Nurses, and for some time superintendent of Dr. Temple's private hospital, Toronto.

THE ASYLUMS FOR INSANE.

We understand that the Hon. J. R. Stratton, Provincial Secretary, has called the attention of the Attorney General to the need of more stringent regulations whereby aged and infirm persons shall not be sent to the insane asylums as lunatics. Mr. Stratton, we are told, recently discovered in the asylums of the Province five persons not insane, who should have been either in the care of their friends or in a house of refuge. He thinks that physicians should be made to exercise greater care in giving certificates as to insanity. This eagle-eyed expert politician spotted these five persons improperly incarcerated in lunatic asylums through incorrect certificates of physicians, who should be prevented from abusing their power in the manner mentioned. He found that one was simply blind, another was simply a sufferer from a rheumatic affliction, others had simply senile decay.

The above are some of the statements which have lately appeared in the city press in various parts of Ontario. We are inclined to think, however, that Mr. Stratton has been, to a large extent, misrepresented or misunderstood. Without any further reference to Mr. Stratton, we may say that similar charges against the medical profession have frequently been made during the last few years. Many, if not all, of the statements referred to have been absolutely false and grossly offensive. Physicians of Ontario do not give certificates of insanity for the purpose of confining within lunatic asylums persons who are simply old, blind or rheumatic.

NOTE.—Since this was written we have seen a communication from Dr. McKinnon, Guelph, which we publish in this issue.—ED.

FULL TEXT OF THE DECISION OF THE COMMISSIONERS AFTER INVESTIGATION OF CHARGES AGAINST THE POLICE.

The Board of Police Commissioners, having carefully investigated the complaint preferred by Dr. Reeve, Dean of the Medical Faculty of Toronto University, against certain members of the Toronto Police Force, for their actions on the evening of Hallowe'en, at the corner of University Street and College Street, have arrived at the following conclusion, upon the evidence laid before them :

1. That, for a number of years past, there have been annually on Hallowe'en night, disturbances, riotous conduct and destruction of property by students and others in various parts of the city.

2. That, in consequence of these demonstrations, many citizens have forwarded complaints to the police authorities, and claimed protection.

3. That it has been found necessary on this night to employ a number of special constables, in addition to the regular force.

4. On October 31st last, large bodies of students paraded the streets, and destroyed the property of peaceable citizens at various points, to the value of considerably over one thousand dollars.

5. That, in view of the destruction of property in previous years, in the vicinity of the Queen's Park, Sergeant Goulding and a party of mounted men were specially detailed to guard that locality.

6. That the medical students of the Toronto School of Medicine, who had been spending the evening with their professors in the park, about 11 o'clock were returning in a body to their homes, to the number of about 400, singing their college songs and shouting their university yells. They were accompanied by their professors, who brought up the rear.

7. Sergeant Goulding, hearing these boisterous sounds, and knowing of the actions in previous years, and being also aware of some of the riotous conduct already committed in other parts of the city, brought his men together at the corner of College and University Streets, and considered it his duty to disperse

this body of students, and prevent the possibility of their joining or meeting other bodies of students returning from the theatres and from downtown.

8. The Board are not prepared to censure Sergeant Goulding for having considered it proper to disperse the medical students, under all the circumstances, but he was too hasty in his method of action.

9. The Board are of the opinion that the sergeant and his men were not in any sense justified in using their riding whips as described in the evidence. The students were obeying the request to disperse promptly. They offered no resistance, and, in the opinion of the Commissioners, showed exceedingly good temper and self-control. Yet the sergeant and several of his men plied their whips on the shoulders of the students as they were scattering. This violence was entirely unjustifiable, and an unwarranted abuse of their powers, and the Commissioners feel bound to express to Professor Reeve and his associates, and to his students, their sincere regret that their officers committed such a grave error of judgment.

10. The extensive powers entrusted to the police, the exercise of much of which must be left to the sole discretion of the individual officer, frequently under trying circumstances, calls for the soundest judgment and the utmost self-control. In the present instance, the Board regret that the officers abused their powers, without sufficient justification.

11. To mark their disapproval of the conduct of Sergeant Goulding and of the example set his men, the Board direct that a fine of seven days' pay be imposed upon Sergeant Goulding, and three days' pay each upon Constables Guthrie, Ide and Ward.

12. As to the case of Constable Miles, the Board are of opinion that the complaint against that officer was not proven.

13. The Board of Commissioners express the hope that as to future Hallowe'en demonstrations, the professors and other heads of educational institutions in Toronto will use their best efforts along the very sensible line introduced by Professor Reeve, with the object of reducing the boisterous and disorderly conduct unfortunately heretofore occurring on this holiday.

14. His Worship the Mayor, being absent during a large por-

tion of the inquiry, does not take part in the findings of the Board, but fully concurs in the general principles laid down in this minute.

Medical Council Elections.

The elections for the Ontario Medical Council were held on December 2nd, but thirteen members were elected by acclamation, as follows: No. 1, Dr. Bray, Chatham; No. 3, Dr. McArthur, London; No. 4, Dr. Robertson, Stratford; No. 5, Dr. Brock, Guelph; No. 6, Dr. Henry, Orangeville; No. 7, Dr. Stuart, Milton; No. 8, Dr. Glasgow, Welland; No. 11, Dr. Macdonald, Toronto; No. 12, Dr. Sangster, Port Perry; No. 13, Dr. Hillier, Bowmanville; No. 14, Dr. Thornton, Consecon; No. 15, Dr. Spankie, Wolfe Island; No. 16, Dr. Lane, Mallorytown. There were contests in four districts, the following being elected: No. 2, Dr. Mearns; No. 9, Dr. Gibson; No. 10, Dr. E. E. King; No. 17, Dr. M. Klotz.

Trial Before the Discipline Committee, Ontario Medical Council.

A committee of the Ontario College of Physicians and Surgeons, consisting of Dr. Bray, Chatham, chairman; Dr. Moore, of Brockville; Dr. Campbell, of London; and Dr. Albert A. Macdonald, Toronto, held a sitting at Guelph, November 13th, to try a complaint against Dr. Chas. A. Jones, of Mount Forest, of unprofessional conduct. Dr. Jones is a registered practitioner, and the charge was that he allowed his son to help him in his practice, the son being an undergraduate in medicine of Trinity College, Toronto, and also a graduate of a medical college in the United States, but not holding an Ontario license. A compromise was reached, whereby Dr. Jones admitted in writing that his conduct was open to objection in a professional respect. He had not at the time supposed that his conduct was open to objection, but he admitted indifference to the opinion of the medical profession, and he apologized. Dr. Jones represented that his son received no fees for the work he did, and he had not been at work at all under his father for some time. The doctor undertook that the trouble will not arise again.

THE ASYLUMS FOR INSANE.

The following communication from Dr. A. MacKinnon, one of the most prominent practitioners of this Province, and a Past President of the Ontario Medical Association, appeared in the *Toronto Globe*:

I beg to be allowed to notice some comments which appeared in your issue of the 18th inst., under the heading, "Imposing on the Province." The Hon. J. R. Stratton is quoted as affirming "that within the past few months five persons were committed to the asylum as insane who were not insane, though the usual certificates were signed by medical men in each case." This remarkable statement is followed by something still more astonishing, "that there is good reason to believe that these persons were sent only to relieve their friends or the House of Refuge, etc." If these statements are true it means that there are ten registered medical men in the Province who sign false certificates—knowing that these persons were not insane, yet certifying their insanity. Whose liberty is safe if medical men sign false certificates of insanity? If the Provincial Secretary believe this true, it is clearly his duty to lay information before the Discipline Committee of the Ontario Medical Council. I am sure an immediate investigation will be made, and if the charges are proved the names of the medical men guilty of such grossly infamous and disgraceful conduct will be erased from the roll of registered practitioners. It is not necessary to appeal to the Attorney-General or to amend the law in any respect. Their names being struck off, they can no longer practice, and cannot, therefore, repeat the offence. Besides, the example will surely prevent any medical man, if so disposed, from transgressing in a similar way.

But, sir, it concerns the public to know what tribunal has decided that these five persons were not insane. It is said, furthermore, in the article referred to, that the Provincial Secretary sent these five persons back to the counties from which they came: one had rheumatism, another was blind. Does the occurrence of rheumatism or blindness make it impossible for insanity also to exist? It will be very interesting to learn the future history of these five persons. It is well known that there are hundreds on the borderland between sanity and insanity. One day or one week they may impress one as being properly responsible. At other times they are far otherwise, and may commit atrocious acts. Then, let me ask who it was that decided that these five persons whose insanity was certified by ten medical men were not insane? Was it the Minister himself, the Medical Superintendent of the asylum or some junior officer in an asylum? For what period were the patients

under observation? The question is one of extreme difficulty. I have known in one instance a man sent home from the asylum with the approval of the Medical Superintendent as not being insane, who committed suicide in an attack of melancholia shortly after his discharge. Who was right, the two medical men who certified this man's insanity, or the Medical Superintendent, who said he was not insane? In another instance a man was discharged from the asylum after a short stay, who, in maniacal frenzy, nearly murdered his mother within two days of his return home. I submit that the medical man who knows the families, and who knows the history of the individual and his environment, is by far a safer judge as to sanity than any asylum authority.

From the tone of the article one would infer that the asylums were the private property of the Government, and that the public were striving, with the connivance of the medical profession, to unload upon them those who are incapable from any cause—rather than suffer them to be a charge upon their friends or the municipalities to which they belong. The truth is far otherwise. So great is the disgrace felt of having a friend in the asylum that many families try in every way to conceal the mental obliquities that exist—so that it is often extremely difficult to secure the consent of the friends in order to obtain asylum treatment for acute cases in their most hopeful stage.

Besides, after all, the people, not the Government, pay for the maintenance of the asylums. And whilst in many departments economy in expenditure is most commendable, in regard to asylums the economy should not be so rigid as to fail in providing ample accommodation and efficient care and treatment for those affected.

In conclusion, I wish to say that since the Provincial Secretary has gone so far as to make these assertions regarding the integrity of men in an honorable and responsible profession, it is obligatory upon him to furnish to the proper authorities the names of those who sign false certificates, and to see that they are properly punished. Indeed, such a course at the outset would be more seemly than to furnish the press with statements that are of the nature of a slander on the whole profession.

A. MACKINNON, M. D.

Guelph, November 10.

Personals.

Professor Osler, of Baltimore, paid a flying visit to Toronto, November 29th.

Dr. H. S. Hutchison (Trin. '01) left Gravenhurst in September, and commenced practice in Cordova, Ont.

Lt.-Colonel G. Sterling Ryerson, M.D., A.M.S., has been promoted to the grade of Colonel "in recognition of his services as Red Cross Commissioner in South Africa."

Dr. J. M. Forster, Assistant Superintendent at the Mimico Asylum for Insane, has gone to Great Britain and the continent for a three months' trip.

Dr. Barr, M.P.P., of Shelburne, after spending some weeks in the General Hospital, Toronto, undergoing treatment for his broken ankle, has quite recovered. He left the hospital November 24th.

Dr. Robert J. Dwyer has returned to Toronto after spending several months at post-graduate work in London. We desire to congratulate him on the fact that he has brought back with him the M.R.C.P. Drs. Rudolf and Dwyer are the only physicians in Toronto having this qualification.

The following new appointments have been made in the Medical Faculty of the University of Toronto: Assistant Demonstrators in Anatomy, A. C. Hendrick, B.A., M.B., A. J. Mackenzie, B.A., M.B., D. McGillivray, M.B.; Demonstrators in Pathology, G. Silverthorn, M.B., C. J. Wagner, M.B.; Assistant Demonstrators in Pathology, T. D. Archibald, B.A., M.B.; F. A. Clarkson, M.B., M. M. Crawford.

Dr. Julius E. Lehman (Tor. '93), after spending between two and three years on the Continent, chiefly in Berlin and Vienna, commenced practice in London, England. After meeting with good success, he decided to return to Canada for a time. He spent a few days in Toronto about the middle of November, and then started for a western trip to Chicago, Winnipeg, etc. He has not yet decided whether he will return to London or remain on this continent.

Professor Lewellyn F. Barker, of Chicago, came to Toronto December 3rd to attend the annual banquet of the Medical Faculty of the University of Toronto, and delivered a very interesting address on that occasion. He also delivered an address on researches as to "Plague" in the far East, and on the following evening his many friends were, of course, delighted to see him and offer their congratulations on his success in Baltimore and Chicago.

Dr. Charles B. Shuttleworth, of Toronto, is now F.R.C.S. England, having recently passed the Fellowship examination. He will return to Canada to resume practice in Toronto in the latter part of this month.

The annual banquets of the Medical Faculty of the University of Toronto and Trinity Medical College were held Wednesday evening, December 3rd. The chief guest at the former was Professor L. F. Barker, one of the University's most distinguished alumni.

Matriculation standard, Ontario Medical Council. After a recent meeting of the Executive Committee of the Council, Dr. R. A. Pyne, the Registrar, formerly announced that the standard of admission for 1903 would be the same as for 1902. After 1903 the requirement will be: 1 Junior matriculation in arts, including physics and chemistry, with honor standing in any one subject of the course; or 2, Senior matriculation in arts.

The fifteenth annual meeting of that vigorous and prosperous Society, the Southern Surgical and Gynecological Society, was held in Cincinnati, November 12th to 15th. One of the chief features of the meeting was the admirable address of its President, Dr. W. E. B. Davis, of Birmingham, Ala. The Society largely owes its success to the indefatigable labors of Dr. Davis, and gladly honored him last year by making him President.

Obituary.

JOHN A. FERGUSON, M.D.

Dr. J. A. Ferguson, of Ottawa, died November 20th, aged 29. Last May he took a prominent part in putting out a fire at Ste. Agatha des Monts, for which he was, a few weeks ago, presented with the Royal Humane Society's Medal. The exposure thus incurred greatly impaired his health and no doubt hastened his death.

DR. NORMAN ALEXANDER ROSS.

Dr. Norman A. Ross, formerly of Toronto, son of the late Dr. A. M. Ross, Simcoe Street, Toronto, died in Detroit, November 27th, 1902. It was at first reported that he had committed suicide, but his physician, Dr. J. J. Mulheron, says his death was due to an accident, from a dose of strychnine taken in mistake for morphine. The remains were brought to Toronto and buried in St. James' Cemetery, December 1st.

Book Reviews.

A Text-Book of the Surgical Principles and Surgical Diseases of the Face, Mouth, and Jaws. For Dental Students. By H. HORACE GRANT, A.M., M.D., Professor of Surgery and of Clinical Surgery, Hospital College of Medicine; Professor of Oral Surgery, Louisville College of Dentistry, Louisville. Octavo volume of 231 pages, with 68 illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$2.50 net. Canadian Agents, J. A. Carveth & Co., Parliament Street, Toronto.

This text-book, designed for the student of dentistry, succinctly explains the principles of dental surgery applicable to all operative procedures, and also discusses such surgical lesions as are likely to require diagnosis and perhaps treatment by the dentist. The arrangement and subject matter covers the needs of the dental student without encumbering him with any details foreign to the course of instruction usually followed in dental colleges at the present time. The work includes, moreover, such emergency procedures as not alone the dentist and physician, but also the layman, may be called upon to perform. These, like the other subjects in the book, have been described in clear, concise language, admitting of no equivocalness. Whenever necessary, for the better elucidation of the text, well-selected illustrations have been employed. For the dental student the work will be found an invaluable text-book; and, indeed, the medical beginner, also, will find its perusal of more than passing benefit.

The Physician's Visiting List for 1903. Published by P. Blakiston's Son & Co., Philadelphia.

This is one of the best arranged lists we have seen. Besides the usual blank leaves for the visiting list for each month and day of the month, there is a special memoranda blank on each page, and also a ledger-page column. In another portion of the book are blank leaves for addresses of patients, addresses of nurses, accounts asked for, memoranda of wants, obstetric engagements, vaccination engagements, record of births, deaths, and cash accounts, etc. In addition to all this, there are tables of poisons with their antidotes, tables of incompatibilities, dose table, table for calculating period of utero-gestation, etc. This concise little pocket-book is fitted with pencil and pocket, and is very convenient in size. For twenty-five patients per week the price is one dollar.

A Physician's Practical Gynecology. By W. O. HENRY, M.D., Omaha, Nebraska.

This little book of some two hundred pages outlines in a general way the field of gynecological science. The aim of the

author, to present concisely the elements of the subject, to furnish the student and general practitioner with a practical guide to the diagnosis of the ordinary gynecological cases, and thereby enable him to pass the case on to the specialist if he cannot himself give the adequate treatment, has been conscientiously carried out. The book should be useful to those wishing only a working knowledge of gynecology.—*The Review-Press*, Lincoln, Neb.

A Compend of Human Physiology for Medical Students. By ALBERT P. BURBAKER, M.A., M.D. Published by P. Blakiston's Son & Co., Philadelphia.

This is a comprehensive little book and covers pretty thoroughly the whole range of physiology, and can be safely recommended as an efficient aid to the student who wishes to get a general notion of the subject. The name of the author is a sufficient guarantee of the worth of this little book. It is one of the series of Quiz-Compend published by the well-known firm of P. Blakiston's Son & Co., of Philadelphia.

Atlas and Epitome of Operative Surgery. By DR. OTTO ZUCKERKANDL, Privat-docent of the University of Vienna. Second edition, revised and enlarged. Authorized translation from the German. Edited by J. CHALMERS DA COSTA, M.D., Professor of the Principles of Surgery and of Clinical Surgery in Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital, etc. With 40 colored plates and 278 illustrations in the text. Philadelphia and London: W. B. Saunders & Co., 1902. Agents for Canada: J. A. Carveth & Co., Toronto.

Dr. Zuckerkandl in this admirable book describes lucidly and tersely the operations of modern surgery in a manner well suited for the surgeon in his every-day operative work, or for the student in his operations on the cadaver. The verbal descriptions are reinforced and illuminated by a large number of excellent original cuts.

A Manual of Surgery for Students and Practitioners. By WILLIAM ROSS, M.B., B.S., Lond., F.R.C.S., Eng. Professor of the Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital, and Albert Charles, M.S., Lond., F.R.C.S., Eng., Surgeon to King's College Hospital and Teacher of Operative Surgery in King's College, Lond.; Examiner in Surgery in Glasgow University. Fifth edition, London: Baillière, Tindall & Cox, pp. 1213. \$5.00. Toronto: J. A. Carveth & Co., Parliament Street.

It speaks in remarkable terms for any large work of to-day, that it should have passed through four volumes and reach its fifth within four years. This work is one that appeals to the student on account of its thoroughness, conciseness and the lucid manner with which all subjects are treated. It is to be hoped that the authors will in future editions, however, begin to abridge and omit everything that is superfluous.

The volume has reached that size now which is about the limit, if much more is added it will be too bulky for the student. We know of no work on surgery to-day that gives the same amount of information in as nice a manner as the one before us. That the authors are progressive, and advance the study in a scientific way, is noted by the relegation of the subject of inflammation to second place, and placing the bacteriology of surgery first. Inflammation does not play the important part that it once did, consequently should not occupy the position of prominence. The work is justly popular with the Canadian student and the practitioner as well, and is thoroughly up-to-date. The illustrations are excellent, in fact we have seen none that excelled these in X-ray illustrations. We do not feel called upon to review the work in any other than this general way. We can thoroughly recommend it, and feel that in doing so we do a great service to the profession and the student.

The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases. A Text-book for Students and Practitioners. By G. FRANK LYDSTON, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Medical Department of the State University of Illinois; Professor of Criminal Anthropology in the Kent College of Law; Surgeon-in-Chief of the Genito-Urinary Department of the West-Side Dispensary. Fellow of the Chicago Academy of Medicine; Fellow of the American Academy of Political and Social Science; Delegate from the United States to the International Congress for the Prevention of Syphilis and the Venereal Diseases, held at Brussels, Belgium, September 5th, 1899, etc. Illustrated with 233 engravings. $6\frac{1}{2} \times 9\frac{3}{4}$ inches. Pages xvi 1024. Extra cloth, \$5.00, net. Sheep or half-russia, \$5.75, net. The F. A. Davis Co., Publishers, 1914-16 Cherry Street, Philadelphia. Canadian Agents: J. A. Carveth & Co.

There are so many volumes issued at the present time on all subjects that one has the greatest difficulty in keeping up with the literature. Some are good, others are indifferent, and many should never have been printed. It is a waste of raw material. The volume before us, however, is one of the good ones and will find its place. The author has carefully revised his material, and while it is built on the old plans, it contains so much that is good, new and original, that it is welcome. We can recommend it to the profession as embodying the advanced ideas on the subject.

A Text Book on Diseases of Infancy and Childhood. For the use of Students and Practitioners. By HENRY KOPLIK, M.D., Attending Pediatricist to Mount Sinai Hospital, New York; ex-President of American Pediatric Society, etc. Octavo, 675 pages, 169 engravings and 30 plates in colors and monochrome. Cloth, \$5.00, net; leather, \$6.00, net.

During the past decade scientific research in medicine has been especially active in the domain of pediatrics. The liter-

ature of the subject has grown luxuriantly on both sides of the Atlantic. Much of it exists in monographs and special papers and is thus scattered and inaccessible by those conversant with the English language alone. The time, therefore, seems opportune for a work which should endeavor to gather and unify the world's best practice in a systematic and convenient volume.

This volume is, however, not in any sense a compilation. It is based upon the author's individual experience and his careful judgment regarding the work of other pediatricists. Among its chief features attention may be drawn to the exhaustive consideration given to methods of examination and physical diagnosis, the subject of infant feeding, the chapters on diseases of the lungs, stomach, intestines and heart.

Thorough treatment has been given to diseases of the blood, and the articles on scurvy, scrofulosis, tuberculosis and the various forms of meningitis will be found specially full and attractive.

In tone the volume is markedly clinical and practical, the author has aimed to spare his readers the labor of deciding between divergent views and throughout adheres consistently to his purpose of affording students and physicians a practical guide and text-book.

The work is illustrated with unusual richness, the plates being mostly original.

The Treatment of Fractures. By CHAS. L. SCUDDER, M.D., Assistant in Clinical and Operative Surgery, Harvard Medical School. Third Edition, revised and enlarged. Octavo, 480 pages, with 645 original illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Polished Buckram, \$4.50 net; half morocco, \$5.50 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This book is intended to serve as a guide to the practitioner and student in the treatment of fractures of bones, being a practical statement of the generally recognized methods of dealing with fractures. The attention of the student is diverted from theories to the actual conditions that exist in fractured bones, and he is encouraged to determine for himself how to meet the conditions found in each individual case. Methods of treatment are described in minute detail, and the reader is not only told, but is shown, how to apply apparatus, for, as far as possible, all the details are illustrated. This elaborate and complete series of illustrations constitutes a feature of the book. There are 645 of them, all from new and original drawings and reproduced in the highest style of art. In this edition several new fractures have been described, and an excellent chapter on gunshot fractures of the long bones has been added. The reports of surgeons in the field during the

recent wars have been carefully digested, and the important facts regarding fractures produced by the small calibre bullet have here been concisely presented. In many instances photographs have been sub-tituted for drawings, and the uses of plaster-of-Paris as a splint material have been more fully illustrated. In its new form, the work fully maintains the deserved reputation already won.

Essentials of Histology. By **LOUIS LEROY**, B.S., M.D., Professor of Histology and Pathology, Vanderbilt University, Medical and Dental Departments; Pathologist to the Nashville City Hospital, etc. Second edition, thoroughly revised and greatly enlarged. 16 mo. volume of 263 pages, with 92 beautiful illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth \$1.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This valuable work has been designed not only as an aid to the beginner, but also to help the practitioner who, having graduated at a time when histology was not taught in all the colleges, desires to gain sufficient knowledge of the subject to facilitate his better understanding of pathology. Both these aims it admirably fulfils, as is evidenced by the demand for a second edition in so short a time. In this edition a number of new original illustrations, most photomicrographs, have been inserted to better elucidate the text. The chapter on technique has been enlarged, a description of the appendix and rectal valves added, and the entire chapter, as, indeed, the entire book, thoroughly and carefully revised. As did the first edition, the work in its present form stands as a model of what a student's aid should be; and we unhesitatingly say that the practitioner as well would find a glance through the book of lasting benefit.

Atlas and Epitome of Traumatic Fractures and Dislocations. By **PROFESSOR DR. H. HELFERICH**, Professor of Surgery at the Royal University, Greifswald, Prussia. Edited, with additions, by **JOSEPH C. BLOODGOOD**, M.D., Associate in Surgery, Johns Hopkins University, Baltimore. From the fifth revised and enlarged German edition. With 216 colored illustrations on 64 lithographic plates, 190 text-cuts, and 353 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$3.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This worthy addition to Saunders' Series of Hand-Atlases will be found of inestimable value in facilitating the student's introduction to the important department of fractures and dislocations, and as a ready reference book for the use of physicians in general practice. This department of medicine being one in which, from lack of practical knowledge, much harm can be done, and in which in recent years great importance has obtained, a book accurately portraying the anatomic relations of the fractured parts, together with the diagnosis and treat-

ment of the condition, became an absolute necessity. The work before us fully meets all requirements. As complete a view as possible of each case has been presented, thus equipping the physician for the manifold appearance that he will meet with in practice. The author has brought together in this work a collection of illustrations unrivalled for accuracy and clearness of portrayal of the conditions represented, showing the visible external deformity, the X-ray shadow, the anatomic preparation, and the method of treatment. We have no doubt that the book will be received with the favor it demands, filling, as it does so admirably, a want long felt.

Treatise in Diseases of the Skin. By HENRY W. STELWAGON, M.D., Ph.D., Clinical Professor of Dermatology in the Jefferson Medical College and Woman's Medical College, Philadelphia, etc. With 229 illustrations in the text, and 26 full-page lithographic and half-tone plates. Philadelphia and London: W. B. Saunders & Co., 1902. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This is not exactly the sort of book that the ordinary student wants; it is really not published for him, but rather for advanced or post-graduate students and practitioners. The author's aim has been to give the readers of the book a full comprehension of the symptomatology, diagnosis and treatment of diseases of the skin. The symptoms are detailed at some length in a remarkably clear way. Much attention is paid to diagnosis and treatment. It is difficult in the space at our command to do justice to such an admirable work as this. A first year student can read it with interest, and understand it without excessive brain work, and yet the ordinary physician in practice will be well satisfied with it in all respects. It is really a practical book for men in practice: but pathology and bacteriology are by no means neglected. We have no hesitation in saying that the book is thoroughly up to date, and is in all respects well suited for general practitioners in all countries.

PRELIMINARY NOTE UPON EMPLOYMENT OF AN ANTI-STREPTOCOCCUS SERUM IN SEVERE CASES OF SCARLET FEVER.*

By GEO. A. CHARLTON, M.D.,

Fellow in Pathology, McGill University; late Resident Physician, Montreal Civic
Hospital for Contagious Diseases.

[From the J. H. R. Molson Pathological Laboratory, McGill University.]

In the number of the *British Medical Journal* for October 4th, just to hand, there appears (p. 1086) a paragraph upon a communication by Dr. Paul Moser, of Vienna, to the meeting of the German Naturforscherversammlung held recently at Carlsbad, dealing with the results which, in his hands, have followed the employment of an anti-streptococcus serum in the cure of scarlet fever.

His serum, it would appear, had been produced in the Sero-therapeutic Institute of the Rudolph Hospital under the superintendence of Dr. Paltauf, Professor of Pathology in the University of Vienna, by injecting horses with the products of cultures of streptococci obtained from the blood of scarlatina patients. The streptococci had been isolated by him from the blood of 63 out of 59 children who had succumbed to the disease. The "serum has been used clinically since November, 1901, in about 84 cases, with the result that the mortality among 400 cases of the disease in the St. Ann's Hospital has been reduced one-half. Only the more severe cases in the hospital were treated with the serum on account of the difficulty in obtaining a sufficient supply. All of the children who were treated within three days of infection recovered; their condition underwent a striking and rapid improvement, and the pyrexia in many cases greatly abated. So far the serum has not been produced in a concentrated form, so that a comparatively large quantity has been injected into each patient. In some cases erythematous eruptions developed, but they soon disappeared. Prof. Paltauf and Prof. Escherich, Director of the St. Anne's Children's Hospital, testify to the good results obtained with it, both in the cases of children and adults." The paragraph proceeds to state that the Austrian Government is about to devote a considerable sum to the purpose of preparing the serum in large quantities for distribution to all hospitals.

Unknowningly I have, for now close upon two years—to be exact, since January 26th, 1901—been engaged upon a similar series of studies upon the cases of scarlet fever admitted to the Montreal Hospital for infectious diseases, and upon the treatment of the same. The results obtained by me follow closely

* Read before the Montreal Medico-Chirurgical Society, October 17th, 1902.

upon those detailed in the paragraph I have just read; in fact, they seem more remarkable. So striking have they been that I have felt that I dared not publish on the subject until I had accumulated a larger number of cases and could place myself in a position beyond any reasonable doubt. My intention had been to wait until I could report upon at least thirty, preferably fifty, cases that had undergone the particular treatment, the number depending upon whether the epidemic of last year continued through to this autumn and winter. The singular harmony between the results here in Montreal and those recorded from Vienna absolves me, I think you will agree, from the necessity of waiting any longer. I only add that I make the matter public at this juncture, not with any intention of claiming priority, for obviously Prof. Moser and his fellow-workers already possess such priority in publication—and that is the only priority which is permitted to stand nowadays—as also in the use of a successful serum, but to let it be known that here in Montreal and on this continent, similar studies and clinical observations, conducted independently, have led to similar results. And, more particularly, I desire to engage your interest in the matter and your aid in obtaining more cases for the employment of this method of treatment, to the end that it may be placed upon an absolutely secure basis.

During the time in which I have been engaged upon this work 117 cases of scarlet fever have been studied bacteriologically. Cultures have been taken from the tonsils and pharynx in all these cases, and streptococci have been found in 65, or 55.5 per cent. of those examined. From 25 of the most severe cases cultures have been taken from the blood during life, relatively large quantities of broth being employed for the purpose. In these I found streptococci invariably present when the blood had been obtained during the first five days of the disease. I also succeeded always in obtaining cultures of streptococci from the pus from suppurating cervical glands and in the discharge from the ear in the case of otitis media. The urine also, in suitable cases, contained streptococci, particularly if the patient had marked albuminuria at the time of examination. Courtois has found streptococci in the urine of 91 per cent. of the cases of scarlet fever examined by him while the patient was suffering from an attack of albuminuria, and in 27 per cent. of those without albuminuria. Many other workers have, from time to time, noted the frequency with which streptococci are to be found in scapular anginae, more especially I might here mention Kurth, Seitz, Booker, Pearce and Dowson, all of whom have written lengthy reports giving the results of their investigations.

I would here note that for some months I was considerably

interested in endeavoring to confirm the work done by Class, of Chicago, upon an organism which he has termed the *Diplococcus Scarlatinae*. There is no doubt that an organism corresponding with that described by him can be isolated from cases of scarlet fever, especially when his methods are followed, but I was unable to satisfy myself that it had anything to do with the causation of the disease. However, I must add that the streptococcus also does not appear to be the essential agent in the disease, as has been claimed by D'Epine and others. In the mild, uncomplicated cases streptococci were not found. These cases gave no trouble and, after the first week or more, required little more than detention in quarantine. My bacteriological studies, carried on at a time when I was also observing the cases clinically, bred in me the conviction that the streptococcus leads to a secondary infection, and that this secondary streptococcal infection is the cause of most, if not all, of the unfavorable complications of the disease. The severity of the attack appears to be due to the concurrent, or, as Roger employs the term, symbiotic action of this micro-organism and the causative agent of scarlet fever upon the susceptible individual, much as it has been noted that streptococcus infection renders diphtheria more severe, though the ill-effects of this symbiosis in scarlet fever appear to be still more marked.

The administration of anti-streptococcus serum was therefore indicated, to counteract the effects of the toxins of the streptococcus and to bring about the destruction of that organism. For it appeared that if this could be accomplished, the cases would resolve into a less severe type and the prognosis would become more favourable.

The various anti-streptococcic sera have, from time to time, been tried in these cases by Baginsky and others, including myself, but with little or no result. Within the last few months, however, I have had submitted to me, and have been given the opportunity to test, an anti-streptococcic serum, produced in the biologic department of the firm of F. Stearns & Co., of Detroit and Windsor, under the direction of Dr. Hubbert, head of that department. Full information has been given to me regarding the mode of production of that serum, and I have myself tested and tried the streptococcus employed in the process of production. It is but fitting that Dr. Hubbert should himself announce the methods by which he has obtained this serum. All that is necessary for me to state is that it is produced along the lines of other sera, a special process being employed, and that in my hands it has proved itself remarkably effective. Nor shall I pretend to explain why one anti-streptococcic serum is more active than another in this particular class of streptococcus infections, nor discuss whether we here have to deal with a

distinct species of streptococcus, or with a strain modified by growth in association with the causative agent of this particular disease.

So far, since the 24th of June last, I have employed it in the treatment of 15 cases. These cases were all severe, and the majority of them, I have no hesitation in saying, under ordinary treatment, would, if they had not terminated fatally, at least have suffered from lingering and troublesome complications. As it was, there were 13 prompt recoveries, almost free from complication. Not one of the 13 has suffered from albuminuria nor from suppurative otitis media. In all, upon admission to the hospital, there was involvement of the cervical glands, but in only two instances did this go on to suppuration: the usual termination was by resolution within 48 hours after the injection of the serum. Another interesting feature of these cases was the rapidity with which desquamation proceeded. It was usually completed by the thirty-second day of the disease, and thus it frequently happened that a severe case was discharged before a milder one which had been admitted at the same time, but had not been treated by the serum.

Two deaths have occurred in this group of fifteen cases. One of these patients was in a dying condition when admitted to the hospital, and lived only four hours. The other, upon admission, was suffering from a severe pneumonia, and though improving somewhat, succumbed five days later to an attack of laryngeal diphtheria.

The quantity of serum injected has been moderate. My usual dose has been 20 c.cm., but in those cases which from the severity of the attack seemed to require a larger quantity, this dose has been repeated. In this respect the serum appears to be more active than that employed by Professor Moser. The effect was usually prompt; the temperature began to fall within two hours after giving the injection, and became normal in from two to four days. There has been no other treatment in these cases except stimulation during the first three or four days, with the usual precautions as to laxatives, diet and rest. And lastly, no adverse symptoms, either local or general, have so far arisen from the use of this anti-streptococcic serum.

It does not, I hold, cure scarlet fever, but its timely administration in the severe cases tends to allay unfavorable symptoms, overcomes complications, and, given at an early stage of the disease, it prevents a fatal termination.

Thus, to sum up, the results seen by me to follow the injection of this anti-streptococcic serum in severe cases of scarlet fever have been:

1. Rapid subsidence of the pyrexia.
2. An accompanying decrease in pulse-rate, with improvement in tension and rhythm.

3. Prevention, or, at least, marked amelioration of such complications as cervical adenitis, otitis media, and albuminuria.

4. Rapid and favorable convalescence in the majority of cases.

I am not prepared to lay the most stress upon the reduction in mortality. It is true that from my clinical experience of the scarlet fever cases in Montreal during the last two years, individually I should have expected a fatal termination in the majority of the cases treated with this serum, so severe did they seem to be. But the intensity of scarlet fever notoriously varies, and again, despite the most earnest desire to preserve an evenly balanced mind, when greatly interested in a subject I recognize that this is most difficult. The physicians who sent these cases into the hospital are possibly more fitted to express an opinion. What I would emphasize is the most remarkable and rapid subsidence of serious symptoms which, in case after case, followed the employment of the serum. I have never previously seen the disease pass so suddenly from a severe, not to say alarming, to a relatively mild condition.

I hope later to publish the results of the observations in fuller detail; in the meantime, I feel that this is a matter of such promise and high import that I beg the co-operation of those here present in affording opportunities for confirming the results which I have just placed before this society.—*Montreal Medical Journal*.

OBSERVATIONS ON ANESTHESIA OF THE DRUM MEMBRANE.*

By GEORGE E. McAULIFFE, A.B., M.D.,

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The majority of clinicians do not believe in trying to obtain local anesthesia of the membrana tympani. Their deductions have been drawn in the main from the futility of using cocaine for this purpose in the external auditory meatus. It is but rational to believe that Nature protects the tympanic cavity from the effects of fluids dropped by chance or design into the external canal. This protection is given by the dermal layer of the drum membrane—a skin without glandular action or hair, acting only as a shield for the layers beneath.

Jacques, by utilizing the selective action of methylene blue, mapped out the nerve plexus in the middle layer of the drum membrane. The nerves spread out in radical meshes from the

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periphery—mostly from above. In the deeper portion of the dermal layer detached bundles run in different directions and end in apparently sensory end tips.

The mucous membrane of the Eustachian tube and of the tympanic cavity get their main nervous supply from the same source—the glosso-pharyngeal.

From a consideration of these facts we see that the external dermal layer has very little to do with the sensitivity of the drum membrane, and that most of the medicines dropped into the ear or applied to the drum membrane have little effect until they nullify the shield-like action of the skin covering.

The fact that refrigeration does not extend deeply enough to desensitize the membrane demonstrates the truth of the former of the above-mentioned conclusions. Furthermore it cannot be localized to the track of the intended incision. The refrigerating sprays need a space of a few inches to secure evaporation. This would bring under its action the whole membrane and canal. I tried to get a tip devised for spraying ethyl chloride on the region of the membrane selected for operation, but was not successful. The application of the spray to the sensitive canal and the subsequent thawing are very painful. I have thought that if liquid air could be applied, as it is claimed, by a cotton applicator it would be the ideal refrigerant knife for the membrana tympani. Unfortunately, too, refrigerants interfere with healing and may cause sloughing.

Various preparations like Bonain's—menthol, carbolic acid and cocaine—depending for their action principally on the carbolic acid, have been used. More or less success has been reported. I do not believe that the anesthesia obtained by this class of cauterants is ever complete, for reasons given above.

Fluids which disturb the osmotic equilibrium of the drum membrane and produce minute solutions of continuity in the dermal layer, thereby allowing cocaine or its succedanea to reach the nerve filaments, are the best we have at present for use in the external canal.

The conditions favoring this application of cocain are: (1) The removal of foreign substances and loose scales from the drum membrane and canal. (2) Dehydration of the outer layers of the membrane—a dessication which causes molecular contraction and interstices through which the anesthetic can reach the deeper parts and nerve terminations. (3) The induction of endosmosis. The first condition is met by the use of hydrozone, which is stronger and better than any other kind of H_2O_2 preparation in softening and boiling out the debris of the canal and in lessening the resistance of the dermal layer. The hydrozone is subsequently mopped out by cotton applicators or syringed from the canal. The second and third conditions are met by

the use of alcohol and aniline oil. The latter is absorbed more slowly, and its effects last longer than the former. The solutions used are 5 to 20 per cent. of cocaine in equal parts of absolute alcohol and aniline oil. Anesthesia is gained in 10-15 minutes. The disadvantage of the solution is that the aniline oil is toxic and obscures the field. The external canal is generally filled to insure osmotic instability and certainty of penetration. The toxicity can in a great measure be prevented by not filling the canal, but by applying to the drum membrane a small wad saturated with the solution and by making only one application. The obscuration of the field by the dark oil will then be less and the solution can be more easily mopped away.

For the last six years I have experimented desultorily with tubal injections of cocaine to desensitize the drum membrane. I have tried fractional experiments, applying the anesthetic to the pharyngeal orifice, to the cartilaginous portion and to the deeper surface of the tube and to the drum cavity, by means of a Weber-Liol catheter or a virgin silver modification. I have come to the conclusion that the Eustachian tube is the only channel through which local anesthesia can be best obtained.

In the embryo $\frac{1}{8}$ of an inch long, the drum membrane is represented by connective tissue, bounded below by the external canal, which forms its skin covering, and bounded above by the Eustachian tube, which forms its mucous covering.

From this embryological formation and from the identity of nerve supply, we find the reason for the fact that anesthesia of the deeper portions of the tube will produce anesthesia of the drum cavity and membrane. It may seem like begging the question to state this, but my trials have forced this home to my mind. I do not believe that the five or six minims I blow into the tube are sprayed by the Politzer bag into the tympanic cavity. I think that absorption of the cocaine by the tubal mucous membrane affects the drum and membrane immediately and by reason of continuity of structure. The fact that cocaine anesthesia has a field of action of about an inch from the spot to which it is applied, would likewise bring the tympanic membrane within the area of tubal anesthetization.

Unfortunately the lymphatic system of the ear is not well known. If I may be allowed to digress, I think that the production of acute otitis media might be explained more by the theory of absorption from a tubal focus or of continuity of structure than by the mechanical one (sometimes urged) of septic matter blown through the tube into the tympanic cavity.

After having forced the cocaine solution into the tube, I have found that in a short time—a time varying in length according to the amount of vascularity present—probing the different areas of the dermal surface of the membrane would occasion little or no distress.

My observations with this method of comparative sensibility do not coincide with those of Dr. Blake, who finds that the areas of the membrane from below upwards and from the umbo backwards increase in movement vascularity and pain. I have sometimes found a trifle of sensibility at the lower margin of the membrane, and at the region of the stapes entire absence of any but tactile sensation.

These facts and observations on atrophic drums have shown me that the dermal layer need not be considered in local anesthesia of the membrane, and does not play so great a part in sensation as the mucous layer, since palpitation of the skin surface does not elicit pain, although it reaches only the mucous membrane. (2) That the pain in palpitation does not result from the local impact, but from the excitation of the whole sensory apparatus of the tympanic cavity, induced, no doubt, by the sudden abnormal inward movement of the drum contents. (3) That the pain of incision depends on the impression made upon the drum membrane by the knife as much as on the cutting. (4) That the incision should consequently be made with the minimum of inward pressure and with as sharp and as thin a knife as practicable. This explains why incision in the membrane is made so much easier by the use of the Graefe knife than by the poor knives made especially for the work—knives whose smallness of blade precludes sharpness of edge. (5) That in order to produce the best results in this method of anesthesia, isotonic or iso-osmotic solutions of cocaine should be used in order to avoid edematization of the tube and subsequent transient otitis media.—*New England Medical Monthly*.

THE VALUE OF GUDE'S PEPTO-MANGAN IN ANEMIA.

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Anemia is a very common disease in this country (Cuba), and consequently one against which the physician is often obliged to contend in the practice of his art. While the use of the ordinary iron preparations often give all the effects that could be desired, yet it usually produces a condition which may be regarded as a secondary disease—constipation. In looking about for a preparation which would not present this very serious disadvantage, which cannot always be counteracted by the coincident administration of laxatives, we came across

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